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AND

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OCT. 3

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PROGRESS OF MEDICAL SCIENCE,  
INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

Meeting of Sept. 14; M. MATHIEU in the Chair.  
CANCER.

A memoir on this subject, by Dr. Sédillot, of Strasbourg, was presented to the Academy by Professor Velpeau. The following is a rapid sketch of the leading doctrines:—

The anatomical and pathological characters hitherto ascribed to cancer are, according to the author, insufficient in many cases for the positive diagnosis of the malady. Lancinating pains, irregularity of shape, hardness, elasticity, softening, ulceration, general disturbance, and even relapse after operation, are circumstances common to various epithelial tumours, to fibrinous growths, and to other lesions; but microscopic examination readily permits the distinction to be established between the globules of blood, fatty, purulent, or tubercular matter, between the cells of fibrous, cartilaginous, epidermic, or cancerous productions. The cancerous cell may be ten times larger than a blood disc, and may be generated in a twofold manner. The cell may arise out of an amorphous blastema, in the shape of cytoblasts, soon changed into nucleoli; or it may be formed in a pre-existing parent cell, from which, on arriving at its maturity, it is separated by dehiscence. An acquired or a hereditary predisposition is always the cause of true cancer, and may be called into action by any accidental cause of local congestion.

## ACADEMY OF SCIENCES.

Meeting of Sept. 21; M. PONCELET in the Chair.

In the absence of M. Boussingault, Prof. Dumas read a paper, by that gentleman, on the chemical phenomena of digestion in birds. M. Boussingault had instituted his experiments on a plan calculated to yield the most exact results, and had chosen ducks, because food in known quantities, and of a composition previously ascertained, could be given to them without consulting their appetite; and, the birds being enclosed in a box, the precise amount of excrement, the quantity of carbonic acid exhaled, and of oxygen consumed, could be calculated without difficulty. In order to remove a cause of error, M. Boussingault had begun his researches by the appreciation of the fatty matter, found after abstinence in the intestinal mucus, and found it equal to 0.160 gramme; after this preliminary operation, the experimentalist had compared the nutritious power of various substances, such as rice, lard, sugar, albumen, &c. Rice did not seem to furnish more carbon than was absolutely necessary for the accomplishment of the chemical process of respiration, and still appeared in this respect superior to lard, cocoa and other fat substances, which being absorbed with extreme difficulty, even when exhibited in excess, were quite insufficient for respiration and for nutrition. Sugar and starch, in a state of purity, were, on the contrary, rapidly

assimilated, and with both the quantity of carbonic acid exhaled could readily be represented. Arabic gum was digested in no instance, but passed unaltered through the intestines, and was rejected with the feces, in which it was easily detected. Albumen, casein, fibrin, and gelatine seemed to M. Boussingault to perform the same part as saccharine or amylaceous matter, i. e., they were sufficient to furnish the chemical elements employed in the respiratory function. When any one of these four substances was exhibited, the urine contained large quantities of uric acid, the influence of azotised food on the production of uric acid being thus placed beyond the reach of doubt. As a remarkable instance of the large quantity of uric acid formed, M. Boussingault stated that, when ducks were fed on pure casein, the seventh part of the carbon contained in that substance was found in the uric acid, in which carbon enters only very scantily as a component principle. M. Dumas closed the communication by an encomium on this experimental method, by which a new field is opened to the chemical researches of physiologists.

Professor Thénard did not wish to detract from the merits of the experiments of M. Boussingault; he was ready to do ample justice to the great talents and indefatigable industry of his learned colleague; but he would ask the physiologists of the Academy, if the function of digestion was accomplished in the same manner, and with the same activity, in an animal crammed to suffocation, and imprisoned in a box, as in another left at liberty to feed according to the demands of his appetite? Could the phenomena be fairly compared with each other? Baron Thénard was inclined strongly to doubt it; as to the influence of azotised food on the production of uric acid, M. Thénard had long considered it fully established by experiments due to Wollaston.

ARSENIC AND COPPER IN MINERAL WATERS,  
BY M. WALCHNER, OF CARLSRUHE.

Professor Dumas communicated another paper forwarded by Professor Walchner. In numerous analytical experiments that gentleman had detected in all iron ores the presence of arsenic and copper, and was led by induction to suppose that these two metals would also be found in mineral waters. Having tested the ferruginous spas of the Black Forest, he ascertained the correctness of his supposition, and also found in the waters of Schwalbach and Pyrmont, arsenic and copper in notable proportions. To these he believes that some of the most striking curative effects of the spas may be occasionally referred. Professor Walchner, observing that iron is to be found almost constantly in arable soils, to which it imparts their dark colour, concludes, that wherever oxide of iron is present, there also the two satellite metals are to be met with. In the meteoric iron of Pallas he has also found copper and arsenic, and hence their presence in the solid parts of the celestial bodies may be inferred.

M. Thénard inquired in what state, and in what

proportions, M. Walchner had found arsenic and copper in mineral waters? and Professor Velpeau asked how the presence of these two metals had hitherto escaped the researches of chemists, although mineral waters had been for so many years the object of the attentive study of the most learned masters?

To Professor Thénard's questions M. Dumas answered that the metals were found combined with carbonic acid, in the state of acid carbonates; but in what exact proportions, M. Walchner did not say: he merely asserted their presence, and his well-known superiority in chemical manipulations could hardly permit the supposition that he had committed a mistake. With regard to Professor Velpeau's remark, M. Dumas would say, that in the analysis of mineral waters, chemists detected chiefly what they sought for—a circumstance which might account for the presence of arsenic and copper remaining hitherto undiscovered.

## THE GUN-COTTON, BY PROF. SCHONBEIN.

M. Arago had read in the newspapers advertisements of the gun-cotton, which he believed at the time to be a catch-penny; but he found that in his opening address to the British Association, at Southampton, Sir R. Murchison had mentioned the discovery, and that M. Schonbein intended to perform his experiments at one of the meetings. M. Arago would therefore inquire from the members of the section of chemistry what they knew of the matter?

M. Dumas replied that M. Schonbein had not concluded his arrangements for securing by patents the invention of the gun-cotton, and therefore still kept his mode of preparation a secret. M. Dumas thought, however, he could see some connection between M. Schonbein's present discovery and some researches that professor was some time since engaged in. Professor Dumas did not know what had been M. Schonbein's mode of preparation, but he had been an eyewitness to the results. Professor Schonbein had, by a secret process, succeeded in transforming ligneous matter, like paper, into a substance as transparent as crystal, perfectly water-proof, and susceptible of taking various forms. This new substance, as flexible as an organic membrane, was so powerfully electrical as to become luminous on the slightest friction, and, when placed near a wall, would stick to its surface with a degree of force which could only be overcome by laceration. This substance M. Schonbein considered highly proper to make plates for electrical machines. The gun-cotton was, in all probability, something analogous to xiloidine; however, the discovery was certainly within the range of possibilities, and M. Wartmann, present at the meeting, had promised on Monday next, Sept. 28, to lay the matter before the Academy.

## INFLUENCE OF PREPARATIONS OF GOLD ON

## GASTRIC DEBILITY, BY DR. LEGRAND.

Until lately the author had met with no opportunity of noticing the effects of preparations of gold, except in children and a few adults. Re-



cently he has had occasion to ascertain their efficiency against debility of the digestive organs in the aged, when bark was useless. Dr. Legrand illustrates his assertion by two cases. The first is that of a lady, aged 87, who, after a fall, was affected with great weakness, loss of appetite, &c. The syrup of cinchona produced no effects, and Dr. Legrand prescribed five grains of metallic gold divided in 3ij. of apple-jelly; in about three weeks the patient was almost well, and, a return of the symptoms having taken place after cessation of the medicine, it was again exhibited in larger doses and with the most beneficial results. In the second case M. Legrand derived the same advantages from frictions on the tongue with the perchloride of gold and soda, in a gentleman, aged 63, who was debilitated by an antiphlogistic treatment which had been directed against enlargement of the prostate gland. "Thus," says M. Legrand, "are verified the praises lavished on gold preparations by the physicians of the sixteenth and seventeenth centuries, who borrowed their ideas on the subject from the Greek and Arab schools."

We will only add that it will require something more than two cases to restore to gold preparations the reputation they once enjoyed. An attempt was made some few years since by Dr. Chrestien, of Montpellier, to reinstate them in the materia medica, but it proved unsuccessful. It was chiefly in syphilitic affections that Dr. Chrestien recommended their exhibition as alteratives; but nothing has since occurred to modify the unfavourable opinion which the medical world conceived of them, and which was wittily expressed in an "aphorism," belonging, we believe, to Professor Ricord:—"It is from the patient to the physician, not from the physician to the patient, that gold is most properly circulated."

#### ACADEMY OF MEDICINE.

Meeting of Sept. 15. M. ROCHE, in the Chair.  
THE PLAGUE.

M. Prus stated that the commission, having met several times in consequence of the recent votes of the Academy, had agreed to reduce to five the medical conclusions, and to two the practical conclusions of the report.

*Scientific Conclusions.*—1. The plague originates in Egypt, Syria, and both Turkey. It is, however, still to be apprehended that the disease may arise spontaneously in the regencies of Tripoli, of Tunis, and in the empire of Morocco. The same occurrence is no longer to be feared in Algeria.

2. The causes to which the development of the malady should be attributed are, habitation on alluvial soils, and damp and warm atmosphere; low, crowded, and badly-ventilated dwellings; the accumulation of putrid organic matter; unwholesome diet; great physical and moral destitution; and negligence of the laws of private and public hygiene.

3. Sporadic plague is not transmissible; epidemic plague can be communicated both in centres of infection and out of these centres.

4. The disease is propagated by miasmata emanating from the bodies of the patients; these miasmata, collected in close or badly ventilated rooms, may form fresh centres of infection. Transmission by simple contact is not proved by any accurate observation; new experiments are necessary to show if the plague can be transmitted by the clothes or apparel belonging to infected persons; from observations collected during more than one century in lazarettoes, it may be inferred that bales of goods do not convey the infection.

5. Out of epidemic centres the plague has never broken out in compromised persons more than one week after complete seclusion.

*Practical Conclusions.*—1. A persevering and intelligent application of the laws of hygiene might produce the destruction of the causes of spontaneous plague, and prevent its development in those countries where it is now generated. The following measures would suffice to render impossible the introduction of the malady into France.

2. To cause vessels to be inspected at their departure from suspected stations, and during their passage, and on their arrival, by medical officers appointed for the purpose.

To deliver to such ships a clean bill of health in ordinary times, *i. e.*, when the plague does not exist, or is present only in its sporadic form; a foul bill of health when an epidemic has appeared, or when its outbreak is imminent,—with the former ten days, with the latter bill fifteen days, of quarantine, both including the duration of the passage. Discretionary power to be vested in the medical authorities of the home ports, permitting them to prolong such quarantine when the plague has appeared on board during the passage, or when suspicious cases are observed amongst the seamen or passengers. Provisionally, until such time as experiment shall have demonstrated whether or not clothes, &c., can propagate the plague, leads shall be affixed to the effects of passengers during the entire passage, or they shall be properly ventilated on board. In all cases the present methods in use for the purification of goods to be considered useless and illusory. Finally, to dispose lazarets so as to ensure the complete seclusion of infected persons, with proper ventilation; pestiferous patients, besides, shall be treated in all respects with the same care and attention bestowed upon other diseases.

The Academy ordered these conclusions to be printed and distributed previously to their discussion, which will begin at the next meeting.

#### TREATMENT OF INSANITY AND MANIA BY PROLONGED BATHS AND COLD IRRIGATIONS, BY DR. BRIERE DE BOISMONT.

From the works of Esquirol and other ancient writers, from the more recent publications of Dr. Aubanc and Dr. Chou, it appears that in mania, cure is seldom obtained before the second month. During a late excursion to England, Dr. Brière acquired the certainty that at the establishments of St. Luke and the Bethlechem Asylum, a favourable termination is not usually observed before the end of the second month of duration; but in France, as well as in England, a great proportion of patients recover only between the fifth and the twelfth month of their illness. When Dr. Brière's method is applied, the length of the malady is reduced to one or two weeks. In support of his statements, Dr. Brière de Boismont brings forward 72 cases:—35 of acute mania, all of which were cured; 10 of maniac exaltation, 6 cures; 11 of delirium tremens, all did well; 10 of monomania, all relieved; and 6 of chronic mania, which resisted the treatment. This consisted of baths at 28° (cent.), in which the patients remained 10, 12, and 15 hours, while a continuous stream of cold water was poured over their heads from a narrow funnel; by the application of this method Dr. Brière de Boismont states that all the acute forms of insanity, and particularly of mania, can be cured in a space of time varying between eight and fifteen days. Chronic mania, on the contrary, although occasionally improved under the influence of the prolonged immersion and cold irrigations, does not yield completely to the influence of the treatment.

#### SATURNINE INTOXICATION, BY DR. SANDRAS.

Dr. Bouchardat and Dr. Sandras have already shown that the persulphuret of iron is a good antidote against poisonous preparations of lead, copper, corrosive sublimate, and arsenic. The liver receives these poisons, and becomes the instrument of their elimination from the system; a fact which the experiments of Orfila and others have fully demonstrated. Messrs. Bouchardat and Sandras think that, in cases of poisoning by the above-mentioned toxic agents, it is necessary to keep in the digestive tube a quantity of the antidote in excess, in order to prevent the absorption of the poison into the small divisions of the vena portæ. In the treatment of poisoning by lead, for instance, Dr. Sandras recommends the following line of conduct. The skin should be first cleared of all metallic impurities which may have attached to it, and a brisk purgative be exhibited to fulfil as much as possible the same indication with regard to the intestinal surface. Immediately after the persulphuret of iron, the antidote recommended by Dr. Sandras must be exhibited in doses of 3j. twice daily. Opium in small doses, Dr. Sandras has found beneficial against colic, pain, cramps, and sleeplessness; in large doses, against

trembling, delirium, convulsions, &c.; in paralysis and anesthesia, strychnine; and belladonna where neuralgia is present. The diet should be substantial.

From July 1, 1845, to August 1, 1846, 122 patients have been submitted to this plan of treatment; 25 were cured in a week, 26 in a fortnight, 17 in three weeks, and the rest, chronic cases, in a space of time varying from three weeks to two months.

#### ACADEMY OF MEDICINE.

Meeting of Sept. 22; M. ROCHE in the Chair.

THE PLAGUE.—A discussion took place on the three amended scientific conclusions of the report, the text of which we have published above; they were adopted after an insignificant debate.

A NEW THEORY OF INFLAMMATION, BY PROFESSOR KÜSS, OF STRASBOURG.—After the immortal works of Boerhaave, Vanhelmont, and our own illustrious Hunter—after the numerous researches of modern micrographists—a new theory of inflammation is undoubtedly a bold attempt. Professor Küss has not, however, been deterred from it by the number or importance of his adversaries; and without pronouncing upon the intrinsic merits of his opinions—a task which we willingly abandon to the opinion of those who imagine them to be the seat of the disease; when an articulation suffers the skin reddens, the cellular tissue sometimes becomes inflamed: shall we, therefore, admit that rheumatism is an inflammation of the skin or cellular tissue? Assuredly not. The same train of reasoning may be employed to demonstrate that synovial membranes are not the primary seat of rheumatism. Exposure to cold is generally looked upon as the most frequent cause of rheumatism; but how many cases do we meet with in which cold has had no share; and how many persons expose themselves incautiously to cold without, therefore, suffering from rheumatism! Cold is no more a specific cause of this disease than of pleurisy or pneumonia; it constitutes merely a determining influence. The proximate cause—the special predisposition in virtue of which a patient is affected with rheumatism after exposure, instead of being seized with pneumonia or bronchitis—eludes altogether our observation. The forms of rheumatism are very numerous: in many instances it manifests itself with several of the characters of inflammatory affections; a chill ushers in the first symptoms; heat of skin and violent febrile excitement follow, the joints become stiff and painful, their integument reddens, and the synovial secretion increases in quantity and distends the diseased articulations, which the pain soon abandons to invade joints hitherto healthy—a circumstance of sufficient importance to establish a complete separation between rheumatism and true inflammations. In the muscular form we find that pain is no longer produced, but relieved, by pressure,—frictions forming one of the most efficient methods of treatment. This variety presents phenomena analogous to those of nervous disorders, with which it would be natural to class it. In those viscera in which fibrous elements are met with, rheumatism is also observed; the bladder, the womb, the heart, the membranes of the brain and spinal chord are all exposed to be affected by it, and we may thus explain some fatal cerebral inflammations which occasionally intervene during the progress of acute rheumatism. It has been said that this disease has a special tendency to attack the heart, and much noise has of late years been made relatively to the frequent coincidence of articular suffering and affections of the central organs of circulation. The frequency of the existence of *souffle* in the heart in rheumatism—a coincidence now generally admitted—does not seem to us, by any means, an unanswerable proof of the propagation of inflammation to the heart or its membranes. During eighteen months, thirty-five cases of acute rheumatism have been admitted into our wards, and in thirteen *souffle* was observed in the heart; but in five of these organic diseases of the viscus existed previously to the outbreak of the articular malady; eight cases out of thirty therefore remain, rather more than one quarter, in which the murmur was heard. We cannot consider it as expressive of endocarditis, an uncommon and



very fatal malady, which we have met with only three times in the whole course of our experience; all three cases were fatal, and in one only was rheumatism present. With regard to ancient organic affections of the heart, we may safely say that the proportion of those which are consecutive to rheumatism is very small when compared to the number of cases of diseased heart which have not been preceded by any articular disorder. Twenty-two cases have been published in which suppuration of the affected joints was stated to have resulted from rheumatism; we have never met a single one for our part, and when we come to examine closely the twenty-two cases brought forward, we find that the presence of pus could frequently be accounted for in a much more satisfactory manner than by attributing its formation to rheumatism: several were cases of puerperal phlebitis, *pus was present in the uterine veins*; others are simply constituted by *post-mortem* inspection, the cases not having been observed before death; at any rate, instances of suppuration are extremely rare, and should not be admitted without a thorough investigation.

#### STRUCTURE OF THE LIVER, BY DR. NATALIS GUILLOT.

The structure of the liver has been of late years the object of the study of many anatomists; but whether the circumstance depends upon the imperfection of the methods of investigation employed, or upon the difficulties inherent to the subject, the efforts of the most learned anatomists have succeeded in placing beyond the reach of doubt only a very limited number of details. A proof of the truth of the foregoing remarks will be found in the contradictory assertions of authors on the arrangement of the elements of the viscus, on the long controversies they have occasioned, and the support they have furnished to very opposite theories of secretion, the mechanism of which remains fully involved in as much obscurity as the anatomical descriptions themselves. Should the liver be considered as an accumulation of follicles, hollow according to Malpighi, or solid, according to Ruyseh? Is the organ, on the contrary, formed of an agglomeration of cells, generated by each other, and bursting in order to permit the escape of the secreted product? Do the excretory ducts arise from the surface or from the interior of the follicles or cells? The blood penetrates the liver through a particular set of vessels, and leaves it by a vein; but does an intermediate plexus exist between the last divisions of the *venæ portarum* and of the artery and initial subdivisions of the hepatic vein; or must we admit, with others, that the blood passes from the former to the latter, through a system of *lacunæ* irregularly dispersed in the hepatic substance, being the origin in both of the blood-vessels and biliary ducts? A demonstration of one or the other of these opinions would, doubtless, be in itself a very important object, and its attainment appears still more necessary when we remark the vagueness of descriptions, the imperfection of the designs, and particularly the very limited number of observations of the numerous works published on the subject. The majority of anatomists attach themselves solely to the study of the liver in a few families of mammiferous animals, forgetting to prosecute their researches in reptiles, fishes, and even in the human species. The investigation of this arduous subject is therefore, for many reasons, one of much interest.

M. Guillot has arrived at the following results by a long series of experiments and observations pursued in the entire class of vertebrated animals. Not only has he performed numberless injections with coloured liquids in the fresh preparations of the liver in fishes, reptiles, birds, mammiferæ, and man, but, by preserving the dried preparations, he has obtained a permanent point of comparison for all new researches, and the palpable proof of his assertions. In the centre of each lobule ramify the initial branches of the hepatic vein; around the lobule runs a terminal branch of the porta and of the hepatic artery. Thus far M. Guillot agrees with Mr. Kiernan; but in the structure of the intervening tissue he widely differs from that anatomist. The vessels which carry blood to the lobule, and those which convey blood from it, communicate

with each other by ducts which are unprovided with membranous walls, and which seem carved out of the hepatic substance. The biliary vessels also commence by similar vessels, which are likewise the origin of the lymphatic ducts; each solid particle of hepatic matter is surrounded by a canal without parietes, in which is poured the blood brought by the vessels, and destined to be carried away by the hepatic vein; interiorly are met with other canals, also without walls, the origin of the biliary and lymphatic systems, and deprived of any direct communication with the blood-vessels.

#### TOPICAL APPLICATION OF MERCURIAL OINTMENT IN VARIOLA.

In M. Briquet's wards, at the hospital of La Charité, a patient, convalescent from typhoid fever, became affected with confluent variola, although he had been formerly vaccinated. The face and a small surface on one arm were covered with mercurial ointment, and in these spots the pustules did not arrive to maturity, remaining in a vesicular state, although the rest of the body was covered with a most abundant eruption. No swelling of the face was observed.

This is another case in confirmation of the views published on the subject in 1839 by Dr. Briquet ("Archives de Médecine"). In an excellent inaugural thesis published in 1840, by Dr. Olliffe, they are also advocated, and we cannot do better than extract from it a few statements which will clearly show on what theoretical views the practice is supported:—In 1825, MM. Serres and Bretonneau proposed a method which they called *ectrotic*, and which consisted in the opening and cauterisation of each variolic pustule with nitrate of silver, in order to prevent the formation of scars; the operation was performed on the second or third day of the eruption at latest, and, although successful, it was abandoned on account of the pain produced by the nitrate of silver, and of the difficulty of its application in confluent cases. Adhesive plasters were afterwards proposed, and those plasters only in the composition of which mercury enters as an element appeared to exercise a repressive action on the progress of the eruption; but it is sufficient to have applied one of these masks on a patient to be aware of the absolute impossibility of obtaining a satisfactory adaptation for more than a few minutes—each movement of the features destroying the contact of the skin with the plaster. The application of the *unguentum hydragryi fortius* is not open to the same objection, and not only modifies the eruption in the most remarkable manner, but even prevents the redness and swelling of the portions of skin which intervene between the pimples. According to the statistical accounts published by M. Briquet, the mortality in cases of confluent smallpox treated by this method is only one-fifth in proportion inferior to what it was previously. The advantage of preventing the formation of scars is not therefore the only object of the treatment: it is also to diminish the intensity of general symptoms, and the gravity of the malady.

#### HOTEL DIEU.

##### ARTICULAR RHEUMATISM—CLINICAL LECTURE, BY PROFESSOR CHOMEL.

Rheumatism is a special disease which can be compared to no other malady with respect to its nature or to its progress. Analogies have been sought for between rheumatism and inflammations; but, in our opinion, the efforts of prejudiced minds to demonstrate the inflammatory nature of the disorder have signally failed. Let us first speak of one of the most singular features of rheumatism, its mobility. You will seek vainly amongst the long list of diseases for another malady showing itself like rheumatism, for a short time in a muscle or a joint, and suddenly abandoning its seat without any apparent cause. It is in the fibrous tissues the affection is observed to reside; and it is in these, and not in synovial membranes, that it arises at first. We cannot admit that the serous structures of the joints are ever the real seat of rheumatism; indeed, it appears to us impossible that a complaint so well characterized should occupy indiscriminately differently organized textures. It is observed in regions totally unprovided with synovial mem-

branes, but never in any part where fibrous tissues do not exist. Thus, in muscular rheumatism no serous surfaces are present to furnish any support to other parts—we will merely record it in its naked originality. According to the author, the share of the vascular system in inflammatory action has been very much exaggerated. It is not even in the blood that we should seek for the proximate agent of molecular nutrition, but in a semi-liquid substance, a *plasma* which penetrates all living textures. The vessels are only a complementary apparatus, present in most tissues, but absent in others, the function of which mainly consists in the preservation of the equilibrium of composition and distribution of the nutritious fluid inherent to the organs. Inflammation consists in the succession of two distinct phenomena: the absorption and destruction of the normal tissues, and the organization of the plasma, or nutritious fluids. The natural consequence of the theory is, that epithelia are, like other parts, subject to inflammation, and false membranes are merely the organized nutritious fluids belonging to the epithelial surfaces. By this explanation, the theory accounts for the absence of redness on the surface of mucous membranes from which fibrinous deposits have been removed, and for the generally inefficient action of antiphlogistic remedies in diphtheritic inflammations. So much for the destruction of tissues. Then reorganization begins with the secretion of plastic lymph—at first amorphous, but soon presenting cytoblasts of 1-120 mill. in diameter, and which conducts itself in a different manner according to the mode of termination of morbid action. The chief difference between M. Küss's opinions and existing theories lies, therefore, in this assertion, that when a vascular part begins to inflame it receives, in a given time, less blood than in its healthy state, whereas it is generally believed that the first phenomena attending inflammatory action consist in unusual redness and increase of the diameter of small blood-vessels.

#### THE SPAS OF THE RHINE.

BY PROFESSOR TROUSSEAU AND DR. LASEGNE.  
(Continued from page 423, vol. 14.)

##### THORACIC DISEASE.

The frequency of chronic affections of the chest, the length, difficulty, and inefficacy of treatment in general, induce many physicians to prescribe mineral waters as a last resource, with the hope that change of climate, of society, and of habits, may tend to improve their patients' health. Although much confidence is not reposed in the mineral elements of the spas, still the medical attendants a useful change of abode without mentioning tendant is well pleased to be enabled to recommend Italy, a name which many look upon as an irrevocable condemnation. Ems, Baden-Baden, Aix-la-Chapelle, and sulphureous wells have acquired, in Germany, a reputation which is gradually extending into France. The ferruginous spas, *e.g.*, Schwalbach, although always injurious, are occasionally recommended in some forms of tuberculization. It is therefore on this point, as on others, necessary to point out the precise indications of the treatment, in order to show clearly what results may be expected from the exhibition of mineral waters. Tubercular consumption will chiefly occupy our attention.

In the north of Germany, and particularly in Prussia, Ems is believed to cure consumption; this (unfortunately usurped) reputation has become, thanks to the reports circulated in society, pretty general, and was originally due to the marked improvement which Catherine, the Empress of Russia, derived from her stay at Ems, at a period when she was considered, at Court, to be consumptive. Confirmed phthisis is not more curable at the spas than elsewhere. We do not deny that in isolated cases the disease may have been arrested in its progress by the use of mineral waters; but the same unhopd-for restorations of health are not unfrequently met with in our hospitals and in our private practice, when nature, and not medicine, must be blessed for the cure.

The question of the radical cure of tubercular consumption, it would therefore be puerile to



agitate; since auscultation permits us to measure the extent of local injury, removing thereby all its uncertainty from anatomical diagnosis, we can no longer rely upon remedies which formerly were confided in without hesitation; but, although science does not furnish us with the means of curing consumption, we may often succeed in anticipating its development, or retarding its progress. To accomplish this, the judicious application of mineral waters will often be as powerful as preparations of opium, and more satisfactory than the inevitable anti-spasmodics to which all patients are at last reduced.

In order to apply this treatment with advantage, we must not be guarded *exclusively* or even *principally* by the signs of auscultation, because, although these signs are the same to the ear in all patients, it is equally true that the same local lesions have been produced by pathological influences differing in each case. The stethoscope may be compared to a thermometer which measures the amount of heat without yielding any information as to the source or future modifications; thus the stethoscope gives incontrovertible evidence as to the existence of certain anatomical conditions, but furnishes no sort of knowledge of the reason of their existence. If, on the contrary, we examine the tubercular patient without being exclusively preoccupied with the local damage, we shall be unavoidably led to essentially practical classifications.

Consumption presents various types according to the previous constitution of the patients. In this respect predisposed individuals, *candidati ad tabem pulmonum*, may be divided into three classes. In the first class we find patients in whom congestions of blood are prompt and easy; in general their complexion is high, but the hectic flush of their cheek is of a proverbially unfavourable prognosis; bleeding at the nose occurs readily; the head and larynx are often the seat of sudden congestion. When these energetic rushes of blood take place towards the chest, oppression is their first result, and the heart occasionally beats with unaccustomed violence. The digestive organs remain healthy, and these patients may be said to suffer only from the diaphragm upwards, in contradistinction with hypochondriacs, who are ill only from the diaphragm downwards. Under these organic conditions consumption is frequently observed. The most severe symptom, throughout such case, is dyspnoea.

To these patients, but to these only, can the waters of Ems be of any service. When stethoscopic signs have not yet demonstrated positively the presence of tubercles, although the persistency of of winter colds and alterations in the voice have awakened the anxiety of the physician, Ems still furnishes chances of success; but the mode of exhibition of the waters requires some caution. The Kischchem or Kesselbrunnen sources may be used, and the water should be mixed with one-third of milk; the sojourn should be longer than the period of twenty-one days usually consecrated to the treatment. As to the baths, it is still an undecided question if they are advantageous in the first period of the disease; they are, however, prescribed at Ems, together with the drinks, but in a more advanced stage the baths are forbidden by many. In our opinion the baths are proscribed by the very constitution of the patients, all the causes by which the disposition to local congestions can be called into action being very much to be avoided. At Baden-Baden the waters are applicable to the same cases, and with the same precautions, as those of Ems; since the erection of the Trinkhalle, the same local comforts can be met with at both places; at Baden the waters are drunk very warm and sweetened.

Thesecond class of consumptive patients comprises quite a different set of subjects, in whom we do not observe the deceitful appearances of health noticed in the first; no hemorrhage is present, but exaggerated secretions replace in them the congestions observed in the former. Chronic diarrhoea, pulmonary catarrh, fluor albus, prolonged coryza, rebellious ophthalmia—such are their most common ailments. In a more advanced stage the skin itself becomes affected with eruptions and sores of

the most tenacious character. In these cases the waters of Ems should not be advised, but sulphurous spas (Aix-la-Chapelle for instance) are of real utility. The baths, however, should be recommended only with much reserve—as indeed should be the case in all forms of consumption.

ANALYSIS OF CALCULI IN A CASE OF ALBUMINURIA, BY DR. GIRARDIN.—(*Journal de Pharmacie et de Chimie*).—After *post-mortem* examination of a case of albuminuria, the kidney was found to contain a large number of calculi, of all sizes from that of a grain of sand to that of a large pea. More than 3ss. was removed from the organ for the purpose of chemical analysis. The gravel was amorphous, of a yellowish colour, and after being washed in distilled water to remove albumen and the colouring matter of the blood, was not modified by water at +60°; boiled in a mixture of spirit and ether, a very small quantity of fatty matter and of cholesterine were removed. Calcined in a platina capsule, the calculi charred and developed the odour peculiar to azotised substances. Potass dissolved them readily, and the solution precipitating abundantly by the addition of acids, a white deposit of lithic acid, the nature of the concretions, became manifest.

STAINS CAUSED BY EXTERNAL APPLICATION OF NITRATE OF SILVER.—These maculae, if abandoned to themselves, last in general eight or nine days, until the epidermis has been replaced. They may be instantly removed by the following simple method:—Expose the maculae to the rays of the sun, after washing them with a strong solution of hydriodate of potass. This is not a new system, for its efficacy has been often tested; but Dr. Guérard (*Bulletin de Thérapeutique*) presumes that it would also succeed in removing the dark colour of the skin produced by *internal* exhibition of nitrate of silver. It has been, however, employed without the smallest success, in a case recorded in the *Journal de Pharmacie*.

DAN. M'CARTHY, D.M.P.

### Ireland.

PERMANENTLY SLOW PULSE.—In a paper on this subject, published in the *Dublin Quarterly Journal of Medical Science*, Dr. Stokes has collected accounts of seven cases of the affection. In the first of these cases the patient was repeatedly affected by pseudo-apoplectic attacks, which were never followed by paralysis. Valvular murmur was attendant on the heart's action. The following are the details of the case as given by Dr. Stokes:—

Edmund Butler, aged 68, was admitted into the Meath Hospital, Feb. 9th, 1846. He stated that his health had been robust, until about three years ago, at which time he was suddenly seized with a fainting fit, in which he would have fallen if he had not been supported. This occurred several times during the day, and always left him without any unpleasant effects. Since that time he has never been free from these attacks for any considerable period, and has had, at least, fifty such seizures. The fits are very uncertain as to the time of their invasion, and very irregular as to their intensity, some being much milder and of shorter duration than others. They are induced by any circumstance tending to impede or oppress the heart's action, such as sudden exertion, distended stomach, or constipated bowels. There is little warning given of the approaching attack. He feels, he says, a lump first in the stomach, which passes up through the right side of the neck into the head, where it seems to explode and pass away with a loud noise resembling thunder, by which he is stupified. This is often accompanied by a fluttering sensation about the heart. He never was convulsed or frothed at the mouth during the fit, but has occasionally injured his tongue. The duration of the attack is seldom more than four or five minutes, and sometimes less; but during that time he is perfectly insensible. He never suffered unpleasant effects after the fits, nor had anything like paralysis. His last fit occurred about one month before admission. He has never heard it remarked that there was anything peculiar about his heart or pulse. At first he found that spirits

were the best restorative or prophylactic, but latterly he has not used them, being "afraid to die with spirits in his belly." On admission, he was haggard and emaciated, but seemed the wreck of what had once been a fine, robust man. He lay generally in a half-drowsy state, but when spoken to was perfectly lively and intelligent. He sought admission into hospital for an injury he had sustained, by a fall, on the left shoulder; this, however, was of no consequence, and he soon recovered under the use of an anodyne liniment.—February 10. He makes no complaint of his general health; his appetite is good, and he sleeps well; bowels regular, and, in fact, all the functions are in good order. He has, however, some cough, attended with a slight mucous expectoration. His intellectual powers are perfect. He complains of a feeling of chilliness over the body, and is never warm except when close to the fire. This has long been the case; and he says that each day he gets a periodical chill, generally in the afternoon, which is followed by increased heat of the surface, but without sweating. On percussion, the chest is universally resonant. The respiratory murmur loud, and combined, more especially posteriorly, with large mucous rales. The impulse of the heart is extremely slow, of a dull, prolonged, heaving character, giving the idea of feeble as well as of slow action. The first sound is accompanied by a soft *bruit de soufflet*, which is prolonged until the commencement of the second sound, and is heard very distinctly up along the sternum, and even into the carotid arteries. The second sound is also imperfect, though very slightly so; the imperfection being much more evident after some beats than after others. Pulse 28 in the minute, of a prolonged, sluggish character; the arteries pulsate visibly all over the body, but no *bruit* is audible in them. They appear to be in a state of permanent distention: the temporal arteries ramifying under the scalp, just as they are seen in a well-injected subject. All the other cavities and viscera appear to be in a perfectly healthy state. Urine, neither acid nor alkaline; of a light colour, specific gravity 1,010; and does not afford a precipitate with nitric acid. He was ordered four ounces of wine, and a liniment for the shoulder. On the 17th of February the pulse rose from 28 in the minute to 30; the murmurs continued unchanged; that with the first sound being plainly audible over the upper part of the thorax, but was evident along the course of the aorta. On the 21st the pulse continued at 30. The patient had complained for a day or two of a lump in his stomach. On the 23rd an oedematous swelling appeared behind the left ear; the pulse was as high as 36. On the 3rd of March the pulse fell to the usual range. The swelling had left the left side on the 24th of February, and attacked the right side of the head, whence it was dispersed by the application of a poultice. His aspect and general health were greatly improved. He stated that he had experienced two threatenings of fits since his admission, both occurring in bed, and both *warded off by a peculiar manœuvre: as soon as he perceives symptoms of the approaching attack, he directly turns on his hands and knees, keeping his head low, and by this means, he says, he often averts what otherwise would end in an attack.* On the 4th he mentioned, for the first time, that he was subject to irritability of the bladder, and that he was obliged frequently to rise during the night to pass water. The urine was found healthy on examination. On examining the heart's action very carefully, occasional semi-beats were perceived occurring between the regular contractions, very weak, unattended with impulse, and corresponding to a similar state of the pulse, which thus probably amounts to about 36 in the minute, the evident beats being only 28, so that there must be about eight of these semi-beats in the minute; but these signs were very indistinct. The patient's state continued much the same, and in March he left the hospital. In June he was readmitted. The cardiac phenomena were precisely as before, but a new symptom had appeared, viz., a very remarkable pulsation in the right jugular vein, most evident when the patient was lying down. The number of the reflex pulsations it is difficult to establish, but they were more than double the number of the manifest ventricular con-



tractions. About every third pulsation was very strong and sudden, and might be seen at a distance; the remaining waves were much less distinct, and some very minor ones could be also perceived. These might possibly correspond with those imperfect contractions which have been already noticed in the heart. The appearance of the patient's neck was very singular, and the pulsation of the veins was of a kind which Dr. Stokes had never before witnessed. He had scarcely suffered from any cardiac attacks since his previous discharge from the hospital.

Dr. Stokes's second case was one of a very slow pulse, combined with anemic condition and valvular murmur. The patient, a man, upwards of 50 years of age, was admitted, presenting many of the general characteristics of senile phthisis. His skin was of a pale yellowish tint, and his whole appearance indicated great debility. He complained of cough and dyspnoea, but did not refer any of his sufferings to the region of the heart. His pulse was generally 35 in the minute, though occasionally rising to 40. The action of the heart was regular, but feeble, and a valvular murmur with the first sound, precisely similar to that in mitral-valve regurgitation, was always audible. This became louder on ascending the sternum, and was most intense on the right side, at the anterior articulation of the second rib. Dr. Stokes was inclined to consider this an example of mitral-valve disease, and supposed at first that the aortic murmur might result from anemia. The patient died without any struggle. On dissection the mitral valve was found healthy. The aortic valve was thickened and narrowed, but not permanently patent. Water poured into the aorta did not pass into the ventricle; the heart was soft and flabby, and, though not an example of complete fatty degeneration, was covered by a very thick layer of fat. The aorta presented several atheromatous patches. In this case the second sound remained normal; there was no regurgitation into the ventricle. The valve was sufficiently diseased to cause a murmur with the first sound, but from its power of closing completely, the second remained unaltered. In both these cases the slow pulse was combined with aortic murmurs, and in one of them organic disease of the aorta was found on dissection.—The third case noticed is one, recorded by Mr. Adams, in which, at the *post-mortem* examination, the aortic valves were found studded with specks of bone. In this case also frequent attacks of apoplexy [?], unaccompanied by paralysis, occurred. The patient was 68 years of age, and the pulse was usually about 30 in the minute. The carotids and middle arteries of the dura mater presented bony deposits.—The fourth case noticed was one recorded by Dr. Cheyne, in the second volume of the "Dublin Hospital Reports," in which the heart had greatly degenerated into fat, the valves were sound, but the aorta was studded with atheromatous concretions.—The fifth case noticed was one by Professor Law, recorded in his original and important observations on the connection between disease of the heart and brain, in the 17th volume of the "Dublin Journal of Medical Science." The case was that of the Earl of K., in whom the pulse was remarkably infrequent, sometimes not exceeding 25 beats in the minute. The patient was subject to syncope. The examination of the body was made in London, and it was found that the semilunar valves of the aorta were thickened and partly ossified, so that they could not effectually have closed the orifice. The brain was extensively softened, and the ventricles distended with a limpid fluid, and the substance of the left hemisphere, both cortical and medullary, was so softened as to present an almost creamy consistence. The arteries at the base of the brain presented opaque yellow depositions.—Dr. Stokes is indebted to Mr. Adams for the particulars of the sixth case, an interesting case of slow pulse, with lesion of the aortic orifice, and remarkable softening of the left ventricle. The patient had been in excellent health up to within a few months previous to his death. He had no palpitation, dyspnoea, nor irregularity of the pulse. He had been exposed to various debilitating causes, and, when seen by Mr. Adams, presented a slow pulse and visible pulsation of the arteries of the neck.

The pulse fell to below forty, and a loud *bruit de soufflet* could be heard along the aorta and in the region of the heart. Mr. Adams found the heart to be one of the most friable he had ever met with, breaking down under the slightest pressure of the fingers. The valves of the aorta were less diseased than could have been expected, considering the state of the pulse, and the visible pulsations noticed in all the arteries. The valves were not inadequate to perform their functions, from their being diseased or altered in their structure or form; but the calibre or area of the aorta was so expanded that they could not prevent reflux into the ventricle.—Dr. Stokes has also lately seen another case presenting a combination of a pulse below 30, with frequently recurring pseudo-apoplexy, not followed by paralysis. The first sound of the heart was accompanied by distinct valvular murmur in this case. The patient is advanced in life, but enjoys good general health. He always finds that the attacks are increased when he is lowered by regimen or medicines. Dr. Stokes quite agrees with Dr. Corrigan in his opinion that in cases of permanent patency of the aortic valve, the patients do not generally bear a reducing system, but are best treated by a tonic, or even stimulating regimen; and with Professor Law in his opinion, that the pseudo-apoplectic attacks, in cases of slow pulse and weakened left ventricle, are more frequently attributable to a diminished or feeble circulation, than to one of active congestion.—Seven cases of permanently slow pulse are thus recorded. In five, organic disease of the aorta or the valves, or both, was discovered on dissection; and in four, a manifest aortic murmur existed: in two of the cases the second sound was normal; and in two there was the murmur of regurgitation in the aortic valve.

CEREBRO-SPINAL ARACHNITIS.—Dr. Mayne has published a paper in the last number of the "Dublin Journal of Medical Sciences," containing a description of this disease, which he had observed in the Irish workhouses of which he is the medical attendant. He believes that the disease has only recently made its appearance in Ireland, and that it has almost simultaneously appeared in several localities. Dr. Mayne states that he believes cerebro-spinal arachnitis to have appeared in an epidemic form in France during the years 1840, 1841, and 1842, during which period it presented so serious a character that numerous reports were submitted to the Academy of Medicine respecting it. Dr. Mayne affirms that its pathology seems to have been nearly uniformly the same, wherever examined: the serous membrane covering the brain and spinal marrow has been found invariably the seat of extensive inflammation; and, unlike the more ordinary forms of arachnitis, the *spinal* arachnoid always suffers much more severely than the *cerebral*. In the *post-mortem* examinations which have fallen under Dr. Mayne's notice, the scalp and dura mater exhibited but little undue vascularity; the pia mater covering the hemispheres of the brain was congested, and the large veins in their way to the several sinuses appeared remarkably turgid. The free surface of the cranial arachnoid felt dry and clammy, and had lost its transparency in many places, particularly at the base of the brain; but there was no lymph or other inflammatory effusion in the sac of the arachnoid. Lymph of a yellowish or greenish hue appeared on the surface of the encephalon beneath the serous tunic; this occurred sparingly on the upper surfaces of the hemispheres, and there only along the sulci, but at the base of the brain it was found in greater quantities, especially in the sub-arachnoid space corresponding to the circle of Willis, where many of the cerebral nerves at their origin were fairly imbedded in it. In the spinal canal a similar exudation filled the sub-arachnoid space; it there existed in sufficient abundance to envelop the cord completely; it also extended down to the lowest extremity of the cauda equina, investing each of the spinal nerves at its source; but in the vertebral canal, just as in the cranium, the cavity of the arachnoid contained none of this morbid secretion. The substance of the brain and spinal marrow appeared remarkably free from lesion; there was no unusual vascularity, induration, or softening apparent, nor did the ventricles

betray any evidence of inflammation. A remarkable feature of this malady is the class of persons on whom it has seized. In Ireland, so far as has been ascertained, boys under twelve years of age have been, with few exceptions, its only victims: the seven cases reported by Dr. Darby were all boys, and only one of them had passed his twelfth year; in Belfast ten cases of the disease were noted, all occurring in boys from seven to twelve years of age; and in Dr. Mayne's experience, individuals of the same description have alone been attacked. It is also a curious circumstance that in France the complaint appeared for the most part amongst the conscripts who had lately joined their regiments; and Versailles, Lyons, Metz, Strasbourg, Avignon, Nancy, and Poitiers, were the places in which it proved most destructive to life. Although females have been very rarely attacked, yet they are not exempt from its invasion, for, at the Hardwicke Hospital, one of Dr. M'Dowel's patients was a girl of seventeen, and the other a woman aged thirty-six years. The symptoms by which this affection commences are in general of a very formidable character, and its accession is usually sudden and quite unexpected; in the majority of cases the patient has been in his ordinary health and spirits up to the very moment of the seizure, and has experienced no premonitory symptoms to warn him of his danger. In four of the cases at the South Dublin Union the boys had eaten a hearty dinner and retired to bed in apparent health, when the disease all at once declared itself. In many instances it commences with severe pain in the abdomen, followed immediately by vomiting, and not unfrequently by purging. In the worst cases these symptoms are accompanied by marked collapse, the extremities are cold and bluish, the pulse is at this time a mere thread, and altogether the disease assumes very much the aspect of cholera. After the lapse of a few hours, reaction, more or less perfect, ensues; the muscular system then presents characters which may be considered almost pathognomonic. The muscles of the extremities, and those of the neck in particular, become remarkably rigid, the head is drawn back upon the vertebral column, and firmly fixed in that unnatural position; no efforts of the patient can bend it forwards, neither can the attendants do so, at least by the employment of any justifiable force. The countenance at this period often assumes very much the tetanic expression; twitchings of the muscles of the face sometimes ensue; the patient loses in great measure the power of moving his extremities, so that he is quite unable to assume the erect position, the surface becomes hot, the pulse full and frequent (from 120 to 140); the stomach often continues irritable, whilst an insatiable thirst torments the sufferer; and the epigastrium evinces marked tenderness upon pressure. Symptoms of a still more distressing nature quickly supervene: the patient may be seized with general convulsions, of frightful severity, requiring personal restraint to protect him from injury; or he may lie in a semi-comatose condition, constantly moaning and grinding his teeth, or even crying incessantly. Towards the close of his sufferings he generally merges into perfect coma, the pulse becomes slow and laboured, the powers of speech and deglutition fail, his stools are passed involuntarily, and death finally closes the scene. All this may occur in a surprisingly short space of time; some of the cases ran their course in forty-eight hours, and the greater number terminated about the fourth day, whilst some few were prolonged over a fortnight or three weeks. Examples are on record of death from the disease in so short a period as fifteen hours. The fatality of the complaint in Ireland has been very great, but Continental practice has been even still more unsuccessful. Dr. Mayne is of opinion that the active exhibition of mercury will be considered the sheet-anchor in England and Ireland, in the treatment of this as it is in that of other diseases of the serous membranes.

The Royal Academy of Medicine of Paris, has recently experienced a serious loss by the death of M. Charles Derosue, well known as a scientific chemist.



## ORIGINAL LECTURES.

DUMAS ON ORGANIC CHEMISTRY.  
No. I.

## INTRODUCTION.

In studying *mineralogy*, we find matter, ever the same itself, changing its form and appearance, and acquiring new properties by being associated in new combinations.

Each molecule remains what it was. Isolate it, and we find that it has undergone no alteration; but, by its union with other molecules, its peculiar characteristics are so masked or modified that analysis alone can assure us that in cerusse there is lead; in rust, iron; and in the whitest marble, charcoal. The appearance alone would never have suggested it.

In *animals* and plants we have substances still less like their original elements. There is so vast a difference between either ligneous tissue or animal flesh, and the simple molecule which forms a part of them, that we do not wonder at those who have attached mystery to the phenomenon, and have held that a creative power, unknown to the mineral world, existed in animal life, or, at all events, that the organized economy possessed some special power—denied to inorganic matter—of transforming certain chemical elements into other elements of a perfectly distinct character. Thus, when we see a beast perish and putrify, or a wood disappear under a conflagration, we find it difficult to dispossess the mind of some idea of destruction. But with a little thought we reach the conviction that, if in the mineral world nothing is lost, nothing created, so is it with organic life. Up to the present day we know nothing either of creation or change of elements; all the variations the globe is so constantly presenting to us are the mere results of combinations, making or unmaking themselves. The part of the carpet-like lawn of to-day is the constituent to-morrow of the animal that fed on it; a few days more, and possibly it enters into our own composition, whence again it disperses itself in the atmosphere, which, yielding it to new plants, produces, later, a new vegetation! The matter of the wood we burn to-day may form to-morrow part of a vegetable in a distant land.

The object, then, of this introduction is to lay bare, in a form at once simple and precise, the great laws which preside over plants and animals, the modifications which these undergo under certain morbid or vital influences, and the classification of their constituents. This effected, we shall have shown how useful may Chemistry prove herself to physiology and medicine.

Let us first examine what are the *excretions* of a carnivorous animal,—limiting our inquiry to the two principal, and thus passing by those which possess for us, under the present inquiry, little or no interest.

The lungs are the agency by which carnivorous animals excrete carbonic acid and water; by the urine they give off the oxide of ammonium. It is of little consequence here that this oxide of ammonium is secreted in the form of urine, and that this, in attracting to it the elements of water, passes at once into the form of carbonate of ammonia.

The slightest observation will at once show us that these substances are the result of oxidation; and we may thence infer that the functions of life are carried on by the process of oxidation; or, at all events, the examination of the two excretions we have just named leaves, as far as they are concerned, no doubt as to this opinion.

But to oxidize carbon or hydrogen, oxygen is necessary, and respiration furnishes this by borrowing it from the air.

Accompanying the oxidation of the carbon and hydrogen there is heat, and electricity disengaged. The carnivorous animals, then, that we have had under consideration, should produce heat and electricity.

We may hence affirm that carnivorous animals produce carbonic acid, water, oxide of ammonium,

heat, and electricity. They disengage water and carbonic acid by the pulmonary cutaneous excretion; the urine carries off the oxide of ammonium in the state of urea; and as to the heat and electricity, we shall see later how the animal economy turns them to account.

If we now examine how the carnivora replace the material thus lost, we shall see that it is entirely from their food. Of what, then, is this food composed? They eat fibrin, which is the principal basis of the muscular flesh; albumen, which constitutes the substance of the white of eggs and the serum of blood; casein, the principal substance in milk and cheese; gelatine; the fat and sugar in milk; in a word, all the materials which they find ready-made in the animals they feed on. These aliments serve to regenerate the matters destroyed in the processes of life, and to reproduce the heat that the animal loses by exposure to the atmosphere or by other means.

By comparing the food of a carnivorous animal with the organs which constitute it, we shall see that it consumes and assimilates materials identical with itself. We shall have occasion, later, to give the precise meaning of the words to "assimilate and consume"; but, whatever that distinction, we may state roundly that the process of nutrition in all carnivorous animals is very simple.

It is impossible not to ask oneself if the process of nutrition is the same in the herbivora which at first sight seems to *create* their muscular tissue, and the general materials of the organs of which they are composed. It is, *apriori*, difficult to conceive that they feed on absolutely the same substances as the carnivora; in one word, that they consume and assimilate identically.

Nevertheless, their excretions are the same as those of the carnivora, for they exhale carbonic acid by the lungs, and ammonia by the urine. Their organization, too, scarcely differs, and is far from showing those extraordinary organs which we should, *à priori*, suppose requisite, in order to explain the change into those materials which the carnivora have already prepared in their food.

The herbivora thus do not differ from carnivorous animals, and whether they consume grain, leaves, or herbs, we shall see that, in their essential parts, those vegetable substances present an *ensemble* of principles which constitute the very same matters as those on which the carnivora feed. And, indeed, nothing can be more easy: a simple analysis, almost mechanical, will suffice to prove it. Let us take a conclusive instance from an article of habitual consumption by the herbivora,—flour, freed as much as possible from bran.

If made into dough rather stiffer than that generally used for bread, and kneaded while a small stream of water is poured on it, the water will at first be seen to run through the interstices of the fingers, and present a milky colour. In continuing the experiment it will, after a time, flow perfectly clear, and nothing remain in the hand of the operator but an insipid, soft substance, of a whitish-grey hue.

This substance, known under the name of the *gluten* of flour, is complex, and is composed of several matters which a simple analysis, using solvents, enables us to separate.

If we first treat it with ether, we shall have some fatty matters. Now, taking up the residue, insoluble under this treatment, by alcohol not too concentrated, and we obtain by ebullition a solution which, in cooling, deposits floating particles of what is actually casein. In now evaporating the liquid we obtain a substance which is known as gluten. The insoluble residue, remaining after all this, gives us vegetable fibrin, which possesses all the properties of animal fibrin extracted from blood. Thus then we extract from gluten in the rough state—1st, fatty matters; 2nd, casein; 3rd, gluten; 4th, fibrin.

But in the disturbed water that has flowed away we may find yet other materials. After a little rest it deposits a perfectly white substance, forming a compact mass, which it is easy to isolate by drawing away the water in which it lies. This substance is *starch*.

In the clear liquid there is formed, by the aid of heat, a greyish translucent cloudiness arising from *flocci*, which, united by coagulation and evaporation, offer all the characters of coagulated albumen. We can extract from this fluid, in still further evaporating it, a substance which is nothing else but grape sugar, or glucose.

Thus, then, the stream of water had dissolved and carried with it—1st, starch; 2nd, sugar; 3rd, albumen—a substance identical with that of serum and the white of eggs.

In wheat gluten, a vegetable product, we find then all the principles of the food of the carnivora. M. Majendie's experiments have proved that this substance, given singly, is precisely that which is most fitted to preserve animal life in carnivora—dogs for example; and that on this score it has the advantage over all vegetable matters, most animal matters, and scarcely yields to meat itself.

Let us analyse by similar means the grain which forms the food of so many animals, proceeding to roots, and even to grass, and we shall invariably find in these products, albumen, and casein, accompanied by starch, sugar, and fatty matters, more or less abundant.

We hence see that nutrition is effected in the *same way* in both these classes of animals—or, rather, throughout the whole animal scale—no matter what may be the mechanism given to crush or ingest the food, or what may be the preference of certain animals to a special kind of food—questions, indeed, with which we have here no concern.

We should, however, remark that the carnivora consume fat mixed with azotized matters, and that, instead of a portion of these fatty matters, the herbivora consume, in general, amylaceous matters—sugar and gums—varying in quantity. But there does not thence result any essential difference; fatty matters, no more than gums, sugar or fecula, are useful for assimilation. In the processes of life, these matters constitute the materials of combustion necessary to animals for the supply of heat. It is only the form of nutrition that is changed, but fundamentally the general character remains exactly the same. This animal burns fats—another fecula—a third something else; but these matters have, in fact, no more influence on the result, than has the kind of fuel or construction of a steam-packet on the steam that sets the vessel in motion.

But let us resume, in a few words, these general views. The carnivora feed on herbivorous animals, and find in them, already prepared, food homologous to their own organisms, or, at all events, principles so analogous that the slightest modification adapts them to the formation of their bodies. Herbivorous animals assimilate vegetables, in which they find ready prepared similar substances, and are thus an intermediate agency between the carnivora and vegetables.

Let us enter into further detail. Unquestionably, the most perfect food is that which resembles milk, which suffices for the nourishment of young animals. Milk contains:—

- 1st. Casein, which contains azote.
- 2nd. Butter, a fatty matter.
- 3rd. Sugar of milk.

These three substances are found in all food. Chocolate contains them, with roots, seeds, and in particular those that are oily.

Of these three substances, sugar, or the non-azotized soluble matter, is the one which animals can best do without. Meat and eggs offer but two sorts of aliment:—

- 1st. Albumen, fibrin—azotized matters.
- 2nd. Certain fats.

The saccharine and gummy substances can then be replaced in alimentation; but it is not the case in regard to azotized matter. Having laid down these principles, let us now enter into a few calculations, and we shall ascertain the importance of the facts that chemistry will some day be able to furnish to political economy, and the assistance it will lend to the legislator as well as to the physiologists.



M. Lecanu has proved, by a course of careful experiments, that, on the average, a man passes each day a quantity of urine containing thirty-two grammes of urea, or about fifteen of azote.

By experiments I ascertain that I each day excrete a quantity of carbonic acid corresponding to thirty grammes of burnt carbon, including hydrogen, which we can make into carbon by calculation.

Hence, if the regular processes of life in man induce a loss of fifteen grammes of azote and of 300 of carbon, it is easily seen that we should modify the conditions of existence if we did not procure for it the aliments represented by the products of the two great functions, respiration and urinary secretion. Thus in the same way that a man's death may be caused in a few days by inanition, so the same effect will be produced, in some other varying period, by an insufficiency of food. Public health will then be impaired, if this condition of destitution be the fate of any part of the population, as it unfortunately happens.

By means of the experiments I have just given, it is easy to say what is the minimum of food for a man, and of what kind it should be: for on one side, knowing how much carbon and ammonia he should burn, and having, on the other, determined by analysis the elements of food, all that is required is a simple equation, in which the different alimentary matters placed on one side should equal 300 grammes of carbon and 15 of azote contained on the other.

We thus arrive at corresponding proportions to the "rations" of the French cavalry soldier—a point probably fixed on after many practical experiments.

The ration of the French soldier is composed of—

	Gr.	Dry Azotized Matters.	Non-azotized.
Meat .....	285	70	—
Brown bread ..	750	1066	596
White ditto for soup .....	316		
Vegetables ....	200		
		154	746

Thus 154 grammes of dry azotized matter correspond to 225 grammes of azote, and to 80 of carbon; 746 non-azotized correspond to 328 grammes of carbon.

Thus we observe that we consume food in the quantities required to produce carbonic acid, water, and oxide of ammonium. We burn or decompose these aliments, or in default of them a portion of our own organs. At the same time we produce heat and force. Under this aspect, man is a machine; in everything resembling a steam-engine; but his operations involve at least double, in certain circumstances treble, the quantity of combustion presented by the best-constructed machines. But man is a machine wonderfully different from that in the general economy of nature; for he disengages in the atmosphere the products which will serve to reconstitute the elements of combustion which he has decomposed. We shall observe that the ammonia disengaged by us serves to give back to the air, in carbonic acid, exactly all the carbon that we have consumed, and by the aid of which this carbonic acid has been formed.

To these facts, so briefly given, on the food of animal life, let us add others which relate to vegetable life, as it is there that we find manufactured the materials that animals only assimilate or consume. Animals borrow nothing from water or from the azote in the air. They but consume the oxygen taken from the air, to burn or decompose their food.

Whatever be the source of food, it must be divided into three distinct classes:—The first contains the azotized matters—albumen, casein, fibrin, gelatine; the second, the vegetable substances—starch, gum, sugars; the third, the fatty matters—oils, greases.

Vegetables contain these three classes of products; and we may examine how they form these, remembering that the animal secretions, water,

carbonic acid, oxide of ammonium, are the food of vegetables.

Let us first, however, respond to an objection. The study of fossils teaches us that there were plants on the earth before the appearance of man and animals. But there were also volcanoes now extinct, and which gave out to the atmosphere enormous quantities of carbonic acid. They must also have thrown out ammonia, since we find in the vicinity of those which yet possess activity, ammoniacal salts. The existence, then, of animal life was not at that time necessary for the growth of vegetation. Other sources, indeed, of ammonia might also be added, but those named suffice, and it would be useless here to enter into details which would lead us far away from our immediate subject. The ammonia, then, which we give out in the air serves to restore to the air, in the carbonic acid which it contains, all the carbon which we had consumed. The researches of M. Payen have proved that all the organs of a plant are formed in their origin by an azotized matter analogous to fibrin, which thus constitutes the aliment of all those organs. Thus ammonia and ammoniacal salts serve as the commencing point in vegetable existence; and in addition, constitute nearly always the food by which the plants manufacture the alimentary azotized matters, which are still more necessary, by a great deal, to animal life.

### A Course of Lectures on Diseases of the Skin.

By JAMES STARTIN, Esq., Surgeon to the London Cutaneous Institution.

#### LECTURE XXV.

#### ŒDEMA VEL SCLEREMA.

As proposed by Startin.

GENUS AND SPECIES.	DIVISIONS	FORMS.
ŒDEMA VEL SCLEREMA.		
S. Livida.	Localis.	Circumscripta.
S. Rubra.	Generalis.	Diffusa.
S. Concreta.		

GENTLEMEN,—Œdema, the subject on which I now propose to offer a few remarks, has not usually been regarded as a malady of the skin, but rather as a synonymous term with anasarca, or dropsy of the cellular tissue; yet in some of our older authors, Wiseman for instance, the term has been given to any diffused swelling of the skin, unattended with the usual marks of inflammation,—in short, it was applied (to use that author's own words) "to a soft, cold tumour, without much change of colour, heat, or pain, unless it be from the distention of the part it affects." I shall still maintain the purport of this definition; but perchance, to prevent misconception, it may be well to introduce the term *Sclerema*, adopted by our Parisian brethren, to denote the disease. This peculiar state of the integuments was first completely described by M. Billard, under the title of *endurcissement du tissu cellulaire*: yet, as a cutaneous disease incidental to infant life only was indicated by this author, I shall be obliged, in the definition which follows, to modify the views he has taken, so as to comprehend in it an intermediate stage between erythema and erysipelas, which is often observed in adults, and which is familiar to every one under that condition of the surface presented by chilblains, though it has its origin from other causes than cold. I shall therefore consider œdema, or sclerema, to consist in a circumscribed or more or less diffused swelling of the human integument, of a livid or dusky red colour, and smooth even surface, attended with a greater or less degree of hardness of the affected parts, arising from congestion of their vessels and slow, gradual effusion, which occasions them to pit or retain the impression of the finger. There is neither the heat, redness, nor pain of common inflammation attending this complaint, which may occur either alone, complicated with, or as a sequel to, other diseases of the skin.

The affection thus defined is perhaps, in some of its forms, one of the most common morbid

phenomena we witness in cutaneous diseases, and may arise from any cause which has a natural or mechanical tendency to interrupt the circulation in some part or parts of the skin; thus the presence of the fluid in anasarca, the obstruction of the circulation from tumours, abscesses, aneurisms, varicose veins, &c., may be cited as most frequently influencing its manifestations; and to these causes, rather than to any attendant inflammation, is the livid or dark red hue sometimes presented by sclerema to be attributed. The species of *erythema* denominated *lava*, or smooth, by Willan, belongs to this disease, as does the form of *erysipelas* he has entitled *œdematoïdes*; thus I have made sclerema to furnish a connecting link between these diseases, in the nature of both of which it is a participator; and I have been led to do this, in consequence of its undoubted existence as an idiopathic affection in one of its forms, which has been described by French writers under the term of *endurcissement du tissu cellulaire*. I must, however, beg to refer you to the chart, by which you will observe I have divided *œdema*, or *sclerema*, into three species, *S. livida* (pale or livid œdema), *S. rubra* (reddish or ruddy œdema), and *S. concreta* (solid or concrete œdema); two divisions, *localis* and *generalis*; and two forms or varieties, *circumscripta* and *diffusa*.

It will be perceived from what has been said, that sclerema may attack any age or condition of life, but it is by far most frequently witnessed in the old and young, than in the middle period of our existence: in the former it may be regarded as a symptomatic manifestation of the decline of the vital powers, and a languid and, perhaps, diseased circulation; in the latter it may be considered as an evidence of the imperfection in the circulatory system. I shall briefly describe each species of sclerema, and by so doing, trust to prove that quite as distinct a character appertains to this disease as to many of the maladies of the skin favoured with a separate consideration.

*S. livida* may occur on any part of the body, but the extremities and face are its most common situations; it generally shows itself in the intemperate or debilitated, and any age may be attacked; it consists in a smooth, circumscribed, or diffused swelling of the part affected, harder than that witnessed in anasarca, yet considerable pressure with the finger leaves a pit or impression; there is little or no preternatural heat, and the part presents a livid bluish hue, and is not painful beyond what the mere distention may be supposed to occasion; change of position does not, as in anasarca, appear materially to influence the swelling, unless its seat be in the legs, when, of course, some degree of diminution is apparent, if the horizontal posture be maintained. This species of sclerema is very constantly seen surrounding chronic ulcerations in any part of the body, particularly in the lower extremities, and seems to consist in such situations of a chronic inflammation of the integument set up by the irritation of the ulcer, and continued and propagated by the superincumbent weight of the column of blood, the free circulation of which is often found to be impeded by a varicose condition of the large veins. Yet the disease may exist without any breach in the continuity of the surface, and in other situations of the body not exposed to the influence of gravitation; but, I may observe, there will almost always be discovered some existing cause for this manifestation of chronic inflammation, the nature of which will either be to subject the part affected to continued irritation, or to create a mechanical obstruction to the circulation of the blood through its vessels. I shall have occasion presently to relate a case where this occurred in the lower eyelids and in the vicinity of the lachrymal sac, from the use of a blowpipe, in a maker of pewter pots, &c., which arose either from the escape of the air into the loose cellular tissue situated thereabouts, from imperfection in the sac or its duct, or from the continued compression of the muscular fibres of the orbicularis, or other muscles of the eye, on some of the large veins which pass inwards between them, with the



ramifications of the ophthalmic artery. After sclerema livida has existed for some time in any part, it is apt to assume a dusky red or purple hue, which may manifest some degree of heat and signs of a more acute inflammation, which will then refer it to the species I have termed *S. rubra*, which often originates precisely as the last described, the only difference being in the dusky red colour of the diseased portions of the integuments. This appearance being very constantly indicative of more or less true inflammatory action, which has been called into existence by the presence of the extravasations and the hindrances to the circulation attending the simpler form of the disease; for it is an axiom propounded by John Hunter, "that any cause which can obstruct the motion of the blood for a given time will become the cause of inflammation." He has even characterized the form of disease I am describing, which I cannot do better than repeat to you, in his own words:—"What I would call oedematous inflammation (says he) is when the extravasated fluid is water; it has very much the appearance of the adhesive, and probably comes the nearest to it of any, being of a scarlet colour, but much more diffused. The fluid extravasated being principally the serum, renders the swelling more diffused than even the inflammation itself; it is very painful, or rather sore, but there is not so much of the throbbing sensation as in adhesive inflammation; it appears to be only on the surface, but probably goes much deeper, for in such cases the extravasated fluid is in too large quantity to be furnished by the cells of the latter alone; but in this, we have not the same guide as in the adhesive, viz., the swelling and inflammation corresponding with each other. The difference between this inflammation and the adhesive arises, I conceive, from the principle of inflammation acting upon a dropsical disposition, which is always attended with weakness, whereas a greater degree of strength would have produced the adhesive inflammation from the same cause, or irritation; and what makes me conceive this is, that in many cases of anasarca legs we have exactly this inflammation come on from distention, which adds to the extravasation of the serum; as well as in most cases of scarifications of oedematous parts to evacuate the water." This description of Hunter will be found to correspond very exactly with the *Erythema lava* and *Erysipelas oedematodes* of Willan, which, as already mentioned, are included in the affection I am endeavouring to describe under the designation of Sclerema, or Oedema rubra.

This species of the complaint often occurs on the arms or legs of the aged or infirm, and those persons whose veins are varicose; and appears there as a hard, dark, red patch or band, the surface being smooth and often polished, which may surround the limb like a zone, the upper edge of the affected parts being commonly defined by a waving line evident to the eye and touch; or it may occur with similar appearances on dropsical limbs in the weak and attenuated, and is occasionally produced by cold, in the well-known form of chilblains, affecting the extremities or exposed prominent parts of the face or other portions of the body. It is very apt to degenerate into ulcerations, and sometimes sloughing or gangrene; the scrotum in old men, the pudendum in women, and the buttocks in both sexes, are also occasionally the seats of this disorder; and in these situations the subcutaneous cellular membrane may be implicated, and abscesses form; but, as observed by John Hunter, this is a "comparatively rare" manifestation, and, in most instances, would refer the disease to erysipelas, on which I shall presently offer you a few remarks. The third species of sclerema, termed *S. concreta*, is a somewhat different affection to those before mentioned, as it is found to occur, as far as my experience and reading would lead me to believe, in the earliest periods of infancy only, and consists in a hardening, to a greater or less extent, of portions of the skin and subcutaneous tissues, those parts of the body being chiefly attacked in

which adipose depositions are most abundant: such as the calves of the legs, the cheeks, the nates, &c., though the whole body may be more or less affected. It has been regarded as the effect of cold, producing a solidification of the fat; but, in the instances I have seen, more of an oedematous nature (*sui generis*) was apparent; and, were I to offer an illustration, I should say it afforded the sensation of frozen integument, without the extreme cold attendant on that state. It could scarcely be said to pit, as in oedema.

This extraordinary, and as yet little understood, disease has been observed in northern countries only; it may commence in any part of the body, or simultaneously in several of the situations I have indicated, and thence rapidly spread to the chest, abdomen, and other parts of the trunk, until the diseased parts successively assume the hardness of wood or dried leather; yet it is more commonly witnessed in one situation only (*S. concreta localis*), in the leg or arm for example; and newly-born children, particularly those appearing before the natural term of pregnancy, are the subjects usually attacked. The winter season also is most favourable to the production of this disease; indeed, cold and a languid circulation seem to be the chief predisposing causes. The surface of the skin on the affected parts is not often altered from its natural colour, yet when the hands or the feet are the parts diseased a more or less violet tint may be observable.

*S. concreta* often terminates fatally. The hardened portions of the integument are then found to consist not merely in a solidification of the fat, for when plunged into warm water their density appears rather to increase than diminish; but there would seem, according to the researches of M. Chevreul, to be an increased or superadded principle of coagulation to the blood or serosity of sclerematous children, which is spontaneous in its action, and much facilitated by a low temperature. *S. concreta* may be complicated with anasarca, convulsions, jaundice, erysipelas, pneumonia, or other affections; but these would appear to possess no immediate influence over the origin and progress of the disease, which is so rare an affection as to have obtained cursory mention only by English authors; yet I have no hesitation in placing it in its present position, from the two or three examples which have fallen under my notice, as it is evidently of the nature of the oedematous inflammation I have endeavoured to portray, not only as regards the morbid change in the parts affected, but in the treatment required for its cure. The mode of its departure from the system is also similar, the edges of the circumscribed hardness becoming soft and yielding from the circumference towards the centre, until its final disappearance. Those cases which terminate fatally, generally do so from the third to the fourth day, and congestion of the lungs or pneumonia is its usual complication; on the other hand, resolution of the induration is rarely accomplished in less than ten days or a fortnight. In the course of the descriptions of these three species of sclerema, I have signalized their characteristics in such a manner as I hope may render it unnecessary to say more on their diagnosis. The only complaints of the skin with which they may be confounded, are erythema and erysipelas; but the greater acuteness of the inflammation, and the origin and progress of these affections, will not fail to furnish distinctions which will render an error next to impossible. *S. concreta* might perchance be confused with certain tetanic contractions, but the difference between muscular rigidity and the hardening of the integument can scarcely need pointing out. My limited experience in this rare disease will not allow me to offer any practical remarks on its complications with other cutaneous maladies, particularly with erysipelas, in which case I can conceive some difficulty might arise in forming a correct diagnosis. The treatment required in the three species of sclerema now described, will, of course, have especial reference to the cause of the complaint, which is not commonly (at least in the two first species) of itself

attended with danger; the feeble and dropsical state of the system, and perchance the diseased condition of the centre of circulation, will claim our utmost attention in those severe cases arising from constitutional disorders; on the other hand, when the causes are strictly local, they must be sought into and removed, if within the compass of the *ars medendi*. The topical measures to be adopted are few and simple: mildly stimulating ointments, fomentations or lotions, are required; and their effects will be much enhanced by the position of the affected parts being so arranged as to avoid gravitation, and by the pressure and support of a proper and well-applied bandage; neither of which necessities can seldom, if ever, be advantageously dispensed with: I have long given the preference to woollen bandages when compared with those of cotton, however fabricated; and find the coarse merino cloth, of which ladies dresses are made, before it is dyed (*Indiana*, I think, is the technical term), or very fine flannel, are the best materials. I show you such a bandage, which you will perceive is at once strong for support, and elastic, whilst the slight nap on its surface prevents its slipping. The material of this roller is a new patented fabric, which has been but a very short time introduced, it is called "*Archer's patent twilled flannel*," and is certainly the best material I have ever seen for the purpose to which I have applied it. The warmth of such a bandage as this, and the comparative ease in its application, are also very great advantages; and which become more readily appreciated when it is used by unscientific or unpractised hands, as is the case at this Institution, where the patients are required, in most instances, to apply their own bandages.

I must beg to refer you to the remarks I made, when speaking of erythema in its chronic forms (to which sclerema is closely allied), for the most useful internal remedies. I think I have found opium, calomel, colchicum, and iodine, either administered separately or variously combined, the most serviceable adjuvants to the external treatment. Little is known of the remedies required by the *endureissement du tissu cellulaire* of newly-born children, as, until observations are more extended, they rest rather on theory than experience; the most useful means, on which observers are agreed, seems the equable diffusion of a proper degree of warmth around the little sufferers—an end that is most readily accomplished by burning a proper-sized spirit-lamp, in a lantern provided with a chimney or funnel bent at right angles, which is made to open into the lower part of a cot-box or cradle, across the middle of which a piece of flannel is horizontally stretched, whereon the infant lies as it were suspended, whilst the heat introduced below the flannel is kept about the patient, and from escaping too rapidly, by the external coverings which may be made to surround the whole apparatus, leaving room for inspiration only.

I show you a sketch of such a contrivance, which you will find very efficient in cases where warmth is required in infantile complaints; the blanket bath or the warm bath may be used as substitutes for this contrivance, but they are much more fatiguing to the child, and cannot be maintained for the time required to render the remedy efficacious.

I will now give a short detail of some of the cases illustrated by the models. The first I shall refer to, is that of Ann Carruthers, aged 61 (No. 6,058), from whose leg the extraordinary cast I marked "elephantine oedema" was taken. This patient resides at No. 14, Little Carter-lane, and was admitted Sept. 1, 1845, having been a sufferer from this monstrous form of *sclerema livida* eight years. You will observe the limb has a livid bluish appearance, a violet tint being only observable on the greatest convexities of some of the irregular swellings; were the skin rough in this case, it might very well pass for elephantiasis; but there was no doubt of its nature, as no tubercular depositions could anywhere be discovered; besides, the complaint commenced in a general



smooth, uniform swelling, which after a time showed red patches here and there, that were sore, and became harder than the rest of the limb; these places are now marked by the darker tints on the model, and no doubt have been occasioned by a consolidation of such portions of the disease as were visited by an acute degree of inflammation. The whole limb at the time of this patient's admission was tender rather than painful, and chiefly inconvenienced its owner by its great weight and cumbersomeness. The treatment adopted and recommended was a properly applied flannel bandage, the horizontal posture, and daily frictions with cod-liver oil, which also was to be taken internally (the iodine contained in this remedy having led to its being employed). But of course, in a case of this unusual severity and long duration, little or nothing could be hoped for from any remedies; I therefore recommended repose in her domicile, and patience under her infirmity; which appeared to correspond with the patient's views as well as my own, as after a few attendances I lost sight of her.

The next case of *Sclerema livida* is that of the solderer with the blowpipe, whom I have already alluded to. W. Hughes, aged 27, of 76, Webber-street, was admitted about a year ago (No. 4,327), with œdema or sclerema livida of the lower eyelids, with which he had been afflicted six years. He stated that his occupation was to repair pewter pots, and to solder with the blowpipe; and that after work he for some years had been aware of an increased fulness beneath his eyes, which disappeared in the morning.

When he was about twenty years of age, however, he noticed that the swelling never completely went down, and he consulted every one he could think of without any good effect; his health was always good, though he was now and then troubled with palpitation of the heart; his condition on admission here presented no general disorder, and the local disease appeared to have no assignable reason for its existence; it was livid and firm, slight pitting only being observable after the pressure had been some time continued; the swelling was about the size of a dessert-spoon beneath each eye, occupying the skin covering the lower half of the orbicularis muscle of the eyelids. I had seen somewhat similar cases of œdema to this, arising from diseased bone in the nose and antrum of Highmore, and therefore carefully investigated this point, and indeed all others which occurred to me as within the range of a proximate cause; but I was at last content to refer the œdema to the mechanical origin I have before mentioned. Leeches, blisters, stimulating lotions, iodine locally and generally, were tried without the least advantage in this case, and I sent the patient to my colleagues, Dr. Southwood Smith and Dr. Hodgkin, without obtaining either any new light on the obscure nature of the disease, or realizing any relief for the case. I was, therefore, compelled to say that he must trust to the effects of time and daily friction with cod-liver oil, or some such innocuous material, for the relief that the best directed medical skill at my command had failed to afford.

The instances of *Sclerema rubra* are very common, particularly as accompaniments with ulcers of the legs; but as the treatment in these cases by compress and bandage, and attention to the general health, does not differ from what has been advised for erythema, I shall spare you the infliction of relating them. Many of the models of ulcers around you exemplify the stages and appearances of this species of sclerema, which, whether complicated with ulceration or appearing more after the character of an idiopathic disorder, manifests very exactly the same morbid phenomena—a circumstance to which I shall again have occasion to allude, when the time shall have arrived for presenting the subject of *Cutaneous Ulcers* to your notice, in a more complete form than the waxen illustrations of these diseases, numerous as they are, will at present admit. I shall now relate an instance of *Sclerema concreta* (the En-

*durcissement du tissu cellulaire* of M. Billard). Three cases of this rare malady have come under my notice in the last four years: the first terminated fatally on the fifth day; the second might have been an example of congenital syphilis, as other unequivocal signs of that cachexy existed, and the child recovered by the use of mercury. The third presents by far the best-marked example of the affection, and recovered in about three weeks, after a faithful attendance to the means I shall relate to you. Edwin Wills, aged eleven days, whose parents resided in Golden-lane, Barbican, was brought to the Institution on the 20th of November, 1844; he had the appearance of a stout, plump child, and the female (I believe the midwife who attended the case) who brought him stated that the mother had an excellent time, and the child was born almost without assistance; but that, ever since he was put to the breast, "she could never get him warm, yet she noticed nothing particular till about two days previously she noticed a coldness and hardness had commenced on one side of the face and head, then the leg and thigh of the same side became affected, and he was now getting cold and stiff in his body." The condition of the child, when I saw him, was extreme palor of countenance, short and rather laborious breathing, and feeble, scarcely perceptible, pulse; the integuments in the parts indicated were hard and solid, the solidity extending from the skin to the adipose and cellular tissue on which it rests; on passing the hand over these parts, a distinct boundary line could be made out, separating the diseased from the healthy integuments. A sensible difference of temperature was also distinguishable, the sclerematous portion being cold; I fancied pressure continued a little time produced a slight pitting; this was most apparent in the leg; and the skin had a violet livid tint in those portions of the disease at the greatest distance from the centre of circulation; the hardness was that of a cake of melted suet; the secretions of this child, as far as I could learn, presented no remarkable feature, and, as I said before, there was no apparent want of flesh; difficulty in suckling was experienced from rigidity of oneside of the face. The treatment adopted was to use the blanket-bath once a day for an hour; a coarse flannel petticoat, wrung out of water at 100 deg., was the mode of application; a little wine and water was poured down the throat every half-hour, which was preceded by half a drop of vinum opii, one drop of salvolatile, and one drop of tincture of castor, in a drachm of water. I visited this child at home after its first visit to the Institution, and found a German stove burning in the room occupied by the mother, which was thus converted into a hot-air bath, for the constant use of the child. I placed two common bricks on the top of the stove, upon these I put an ordinary wicker clothes basket, across which a piece of lincn had been fastened, so as not to touch the bottom; on this stage of linen I placed the child, enveloped in a flannel wrapper, and, by means of a blanket, I so covered the whole apparatus that the heat radiating from the stove should be directed through the basket and around the child, the door of the stove only having free communication with the external air. By this means a very high temperature could be kept up, I should say 120 to 130 degrees of Fahrenheit; and from this the infant was only removed to the breast of the mother. In the interim beef-tea was administered, with the wine and water and the medicines as before. After this plan had been pursued a few hours the infant broke out into a profuse perspiration, whilst its features became red and florid, and it moved about and cried lustily, and then fell into a sound sleep, so that on my visit in the evening of the second day, these means having been adopted in the morning, the sclerema had begun to disappear, as evidenced by the edges of the indurated portions becoming yielding and soft. The same treatment was therefore continued without the vinum opii, whilst pressure on the parts affected was made by gentle friction and a flannel bandage. As the bowels

had not acted, a teaspoonful of castor oil was ordered. The next day we were obliged to return to the opium, from the restlessness and want of sleep, but the oil had acted well and the child was evidently better. On the fourth morning the nurse came to say, "The hardness had nearly gone, but the child was dying, and could not get its breath." On attending I found it with quick pulse and laborious breathing, and substituted two minims nitric ether and a drop of the liquor of tartarized antimony, for the other remedies, with two grains of mercury and chalk at bedtime; the heat of the stove to be gradually moderated. This change had the desired effect; the child rallied towards evening, and in the course of another day or two was considered out of danger. Three weeks, however, elapsed from the first attendance, before it might be said to be convalescent; during which time the treatment was regulated on general principles, and the blanket bath, on alternate days, substituted for the contrivance for using hot air I have detailed. As I have not heard of this case for the last six months, I have no doubt the child continues well. I may mention, that there can be little doubt the lungs were implicated in this instance of sclerema concreta, which occasioned most of the difficulties attending it. The case forms, however, a verification of the success attending the treatment, which is that recommended by M. Billard, to whose opinions on this subject I beg to refer you for further particulars of so extraordinary and rare an affection.—*MM. Billard et Duges sur les Nouveaux-nés.*

## ORIGINAL CONTRIBUTIONS.

### REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery in St. Bartholomew's Hospital, Examiner on Midwifery to the University of London, &c.

#### FUNGOID DISEASE.

(Continued from page 480, vol. 14.)

The following cases of fungoid disease I have selected, from their having come under my notice at a much earlier stage than those I have already described; I trust they will prove interesting, not merely because they show the characters of these affections when recently commenced, and when, comparatively speaking, the changes of structure have attained but a moderate extent, but also because, if treatment is ever to be of any use in fungoid disease of the uterus, it will be in cases of this sort.

Mrs. H., aged thirty-three, married ten years; mother of two children.

May 11, 1846. Pale and haggard, although stout; abdomen much enlarged; constant pain of back, extending to the loins, hips, and down the thighs; has occasionally darting pains through the pelvis; suffers from piles; has a yellowish watery discharge; bowels confined; stomach deranged; tongue fissured; complains that she has latterly lost the sense of smell; the catamenia have been gradually becoming more pale and scanty since last November; has supposed herself pregnant since December.

*Exam. per Vaginem.*—Os uteri transverse, large, bard; uterus bulky, but moveable, not tender; uterine sound passed a little beyond two inches and a half; it produced no unusual degree of pain; uterine cavity seems large, and bleeds on being touched with the sound.

*Hirudines v. ano.*

Rx. Pil. hydrarg., extr. coloc. co., aa. gr. v., o.n.

Rx. Acidi nitrici dil., acidi hydrochlor. dil., aa. ʒj.; infus. gentianæ co., infus. sennæ co., aa. ʒiv., m., ft. mist. cujus sumat cochl. magn. bis terve die.

Rx. Liq. plumbi diacet., ʒij.; decoct. papav., ʒviij.; m. ft. lotio sæpius injicienda.

May 15. Leeches bled well, with some relief; bowels opened three times daily; evacuations still unhealthy; tongue more natural; has still a bad taste in the mouth.

Rx. Pil. hydr. gr. iij., ferri sulph. gr. ij., extr.



coloc. co. gr. v.; m. ft. pil. ij. o.n.s. Rep. mist.

Rx. Ferri sulph., extr. conii, aa. ʒj., aquæ distillatæ ʒviij.; m. ft. lotio.

May 25. Catamenia appeared last week, with much pain and sense of weight; the discharge was not so profuse as in former times, although much more copious than it has been for some months; complains of pain in right hip; feels better; less hemorrhoidal congestion. Pergat.

June 5. Feels better, but the abdomen is very large; has experienced some difficulty in passing water of late, which still continues to a slight degree; has a brownish, unhealthy-looking discharge.

Rx. Ferri citratis ʒij., acidi citrici ʒii., aquæ distillatæ ʒviij.; m. ft. mist.

Rx. Potassæ bicarb. ʒij., syrupi aurant. ʒj., aquæ distillatæ ʒviij.; m. ft. mist.; ejus sumat ter die cochl. magn. ij., cum pari misturæ superscriptæ inter effervescendum portione.

Rx. Sodæ potass. tart. ʒj. or ʒij. o.m. ex aquâ. June 11. Discharge somewhat better; darting pains less; legs swollen and varicose. Rep.

June 24. Discharge better; less pain; legs less swollen. Rep.

July 30. Discharge more yellow; pains much relieved; legs better.

Rx. Tinct. ferri sesqui-chloridi m. xx., ter die ex aquâ sodaicâ. Rep. pil.

It is not easy or always possible to decide, at an early period of fungoid disease, whether it be cephaloma or hæmatoma, nor in a practical point of view is it of much importance; the main point is to determine the presence or absence of malignant disease; and the symptoms enumerated in the case just detailed leave no doubt on that head.

The hard, swollen os, and bulky mass of the uterus; the enlarged cavity, readily bleeding when touched; the yellowish watery discharge; irregular and scanty catamenia; the constant lumbar, pelvic, and occasionally lancinating pains, and the condition of the patient's general health, all combined to indicate the existence of malignant disease. The uterus, although large, being still moveable, showed that the disease had not extended beyond its parietes, and only existed there in an early stage. The condition of the abdomen is well worthy of attention. From its size and from the scanty catamenia, she had supposed herself pregnant, although I need hardly say that, from the results of the examination, there could not be a shadow of doubt as to her not being so; the hard transverse fissure formed by the os uteri was alone quite sufficient to settle this point. The abdominal enlargement, so frequently seen in these cases, appears to be a complication of congested portal circulation, fat and distended bowels, resulting from long standing derangement of the assimilating functions which so invariably attends, and probably so frequently produces malignant disease. Hemorrhoidal diathesis is almost always present, and, in spite of the half-anæmic condition of the patient, I deemed it necessary to premise the application of leeches to the anus as a first step. By this means I not only relieved the state of pelvic congestion, and mitigated pain, but enabled the liver to respond more readily to the alteratives which I prescribed. The only tonic which I ventured to give was alterative and laxative also, and ensured a brisk action of the bowels, without drawing any quantity of fluid from the circulation, as would have been the case with a saline purge. Although the bowels were freely opened for several days, the evacuations continued of an unhealthy character. The tongue, however, had become more natural; the fissured surface, which Dr. Marshall Hall has correctly pointed out as a symptom of hepatic derangement, had nearly disappeared, and encouraged me to diminish the dose of mercurial medicine, and combine it with steel. I therefore determined to keep up the action of the bowels by continuing the mixture, and now ordered the lotio ferri c. conio, which I have already mentioned in a previous report. The catamenia appeared shortly afterwards much more freely than they had done for some time. The hemorrhoidal congestion abated, and she felt better. In about a fortnight I put her entirely on a course of chalybeate medicine. Although she continued to feel better, I was not satisfied with her symptoms;

the abdomen was still large; she had experienced difficulty in passing water; and the discharge was of a very unhealthy character. On this treatment she steadily improved, and I made no alteration in it for nearly two months, when I substituted the tinct. ferri sesqui-chloridi in soda-water, as being an agreeable imitation of the celebrated chalybeate spring (the Wein-brunnen) at Schwalbach, since which she has discontinued her visits, and, if I recollect right, went to the seaside.

In reporting this and the following cases, let it not be imagined that I suppose the disease to be arrested, still less to be cured, by the treatment I have recommended; if I have retarded its progress, this is the utmost I have ventured to hope; but I am anxious to show that the treatment of malignant uterine disease may, and ought to, consist of something more than opiates to deaden pain, and purgatives to prevent constipation, and that a great deal may be done in the early stages to control and abate the depressing effects upon the system which are invariably produced by the presence of malignant disease.

Mrs. J., aged sixty, mother of five children; has had two miscarriages.

July 2, 1846. Stout, flabby, pale; darting pains in the pelvis; sanguineous discharge; considerable derangement in the digestive organs.

The discharge commenced a year ago, with an acrid, watery discharge in the intervals; has only noticed the lancinating pains within the last month, and first observed them after a vaginal examination; she was ordered to use alum lotion for the discharge, and took doses of plumbi diacetat.

Examination per Vaginam.—Os uteri hard, knobby, irregular; uterus inclined backwards; the uterine sound passed backwards and to the left to the distance of three inches and a half; uterus slightly moveable; a profuse discharge followed the examination.

Rx. Pil. hydrarg., gr. iij.; ferri sulph., gr. ij.; extr. lupuli, gr. v.; m. ft. pil. ij., o.n.s.

Rx. Acid. hydrochlorici dil., acidi nitrici dil., aa. ʒj.; tinct. hyosc. ʒij.; syrupi aurantii, ʒss.; infus. gentianæ co., ʒviij.; sumat cochl. magn., ij. ter die.

Rx. Ferri sulph., extr. conii, aa. ʒj.; aquæ distillatæ ʒviij.; m. ft. lotio.

July 16. Feels better, but she still has lancinating pains, and a constant watery discharge; the pills act rather briskly.

Rep. pil. p.r.n., omit mist. Rep. lotio.

Rx. Mist. ferri citratis efferves., bis die.

Sept. 8. Much improved in appearance and general health.

I consider this to be a case of malignant uterine disease of a fungoid character, somewhat more advanced than the previous one; and the presumption is that it is hæmatoma, from the frequent discharges of blood, and from the profuse hemorrhage which followed the examination. The uterine cavity is considerably enlarged, and more so than is commonly observed in cases of cephaloma.

In this case the beneficial effects of the treatment were very manifest. When I first saw her she was haggard and cachectic-looking, with an expression of suffering strongly marked in her face. At my last visit she walked across the room briskly and remarkably upright; the face was pale, but the cachectic appearance was greatly diminished; the eye was bright and the expression cheerful. I made some slight alteration in the medicine to please her, but have omitted to note it down.

#### ON SULPHATE OF QUININE IN LARGE DOSES AS A CAUSE OF ANASARCA.

By Dr. MARTIN.

Translated for the MEDICAL TIMES by ALFRED MARK-WICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

As regards the administration of sulphate of quinine in large doses in intermittent fevers, the question necessarily arises whether it is not sometimes, perhaps, indeed, often, a principal cause of the general infiltration which so frequently occurs after these affections. For my own part I must confess that, during the few years I spent in Africa—where I had opportunities of observing, under almost the very same forms and in different localities, several

cases of this description treated in various ways—I must confess, I say, that I have sometimes attributed some of these unfortunate sequelæ, and among others anasarca, to the immoderate use I have seen made of the sulphate of quinine.

Without attempting in this place to discover (what, moreover, would be in vain) the seat of intermittent fevers, I think, nevertheless, I may affirm without reproach, that the cerebro-spinal system plays a more or less important part according to the type and character of each, and that in those called malignant, where the predominant symptoms take their origin from the nervous centres, the sulphate of quinine, the immediate action of which is still a mystery, is not without producing on the vital powers a certain degree of excitement. The result of this excitement ought, certainly, to vary according to the case and the dose in which the exciting agent is prescribed; and, if this be the case, are we really able to lay down fixed rules for its employment? The question seems answered in itself, but in order to impress it more deeply, I will briefly describe two opposite methods of using the remedy, and endeavour to clearly point out the facts in proof of my assertions.

During the summer of 1839 I witnessed in Algeria a great number of severe cases, which presented to the physician in attendance such a character as to enable him, on the first symptoms, to give a correct diagnosis. His first step was to have immediate recourse to revulsives (sinapisms and blisters to the lower extremities), and to excite a powerful reaction, which he kept in check, as occasion required it, by bloodletting, followed very shortly by the exhibition of sulphate of quinine. If the patient was not threatened with coma, accompanied by trismus, spasmodic contraction of the pharynx, &c., it was given in solution combined with sulphuric ether, or Sydenham's laudanum, in doses of one gramme (equal to nearly 15½ grains English) night and morning. But if this was not the case—that is to say, if the symptoms just mentioned did not exist—clysters were administered, containing from six to ten decigrammes of sulphate of quinine, and about 1 gramme of Sydenham's laudanum. During the use of these means, blood was occasionally abstracted both locally and generally. As the symptoms of reaction gradually disappeared the quantity of sulphate of quinine was insensibly diminished, and when convalescence appeared to be well marked, different kinds of tonics were employed, together with a plentiful and nourishing diet. From six to eight grammes of quinine were by this means always sufficient to overcome these malignant cases, which were rarely followed by fatal results.

If, in the course of the convalescence, slight febrile action was set up, the preference was given to the exhibition of a weak decoction of cinchona, but without any restriction to a rigorous diet, in opposition to those physicians who, as we shall see by-and-by, have recourse, under similar circumstances, to large doses of sulphate of quinine and a debilitating regimen.

As regards intermittent fevers of a regular type, the exhibition of sulphate of quinine was proportionate to the intensity and duration of the disease. It was often combined with opium and sulphuric ether, and its doses were not fixed in that almost mathematical manner, as was the case with some physicians, who were of opinion that, in all fevers occurring in paroxysms, large doses of sulphate of quinine prevented the relapses that were so often observed after an opposite plan.

In the summers of 1840 and 1841, while still in Algeria, I saw intermittent fevers differently treated by sulphate of quinine. In severe cases, for instance, it was given in doses of three or four grammes a day, either by the mouth or by the rectum, according to circumstances. It was rarely preceded by general bloodletting, the application of leeches being preferred. When all the unfavourable symptoms had disappeared, the administration of the antiperiodic was still continued for several days,—the dose, of course, being less, and gradually diminished until the patient could take half his allowance of diet. If, during convalescence, febrile symptoms, no matter how severe, showed themselves, total abstinence was imme-



diately ordered, and sulphate of quinine, in quantities proportioned to the severity of the symptoms, alone exhibited. From eight to ten grammes of this drug, on an average, were made use of for an ordinary intermittent fever, and from fifteen to twenty for one of a malignant nature. In those wards where sulphate of quinine was thus lavished, several patients were observed affected with anasarca. But this did not prevent recourse being had to cinchona, in greater or less doses, under the impression that this complication was merely the result of the continuance of the febrile symptoms, and which required to be subdued by the specific. In short, sulphate of quinine was at that time an actual panacea. In cases of less importance than those I have just mentioned, sulphate of quinine was administered in doses of one gramme at least, to prevent a paroxysm of regular fever, and its use continued for a variable period. By prescribing it in this manner the practitioners were certain they contributed to place the patients beyond the possibility of a relapse.

Finding themselves submitted to a strict regimen, and more especially exposed to an accident so much to be dreaded as general infiltration, patients refused to take the sulphate of quinine, being convinced it occasioned anasarca.

This complication occurred more particularly in military men, who had made use of this drug in large doses for a long time, and in whom relapses had been more or less frequent.

Although I by no means deny that the existence of the fever may have, itself, in some of these patients, occasioned the accidents above mentioned, still I cannot help thinking that the immoderate use of sulphate of quinine, for the purpose of stopping symptoms which might be removed by its succedanea without causing so great a degree of weakness, contributed in a great measure, by its debilitating action, to throw the nervous system into a state of torpor, to considerably slacken the circulation in the vascular system, to cause a great deal of various organic functional disturbance, and lastly, from this cause to occasion serious disorders of nutrition, which ended almost always in death.

In order to give greater weight to the truth of my assertions I will merely rest them on the authority of M. Trouseau, who states, in the article "Quinquina" of his "Traité de Thérapeutique," that it is incomprehensible how M. Bally can assert that he has never experienced the slightest inconvenience from giving as much as four grammes a day of sulphate of quinine. Either M. Bally's patients must have deceived him, or else he himself has not given all the attention to it that was required. "Daily observation," says M. Bretonneau, "proves that cinchona, when given in large doses, produces in a great number of persons a well-marked febrile action. The characters of this fever, and the period at which it makes its appearance, vary according to the individual. It is generally preceded by a singing in the ears, deafness, and a sort of intoxication; slight shivering soon takes place; a dry heat, accompanied by headache, succeeds, and is gradually replaced by perspiration. While the fever, caused by the active principle of the cinchona, instead of yielding to fresh and large doses of the drug, was sure to be aggravated."

In the hospitals where the quinine was not lavished in the manner above mentioned, the cases were less frequently complicated with anasarca, which was met with, on the contrary, pretty often in patients who had had recourse to a treatment similar to the one I am condemning.

Those of my colleagues who have lived and who still live in Algeria are able to convince themselves of the justice of my remarks.

[An apparently still more effectual method of exhibiting sulphate of quinine than any hitherto employed has lately (March, 1846) been proposed by M. Ducros, in a memoir presented to the Académie des Sciences, and containing the following remarks:—

"1. Sulphate of quinine, dissolved in sulphuric ether, and rubbed on the tongue, on the velum palati, on the inside of the cheek, or on the roof of the throat, excites an abundant salivation accompanied with a remarkably bitter taste, in doses of five centigrammes (equal to about one grain English), and this dose produces a more powerful

reaction on the spinal cord than, if it were carried to the extent of two grammes, and introduced either into the stomach or the rectum.

"2. That which characterises the action of the sulphate of quinine by the buccal method (*methode buccale*) is its being almost instantaneous, both in intermittent fevers of a simple and malignant nature, and also in cases of temporo-facial tic douloureux."

"3. This instantaneous therapeutic action is more particularly of importance in malignant intermittents: for whilst, by the ordinary modes, sulphate of quinine, in order to produce its effect, ought to be administered several hours before the paroxysm; it requires to be given only half-an-hour previous to its commencement, by the buccal method.

"4. The greatest advantage in administering sulphate of quinine in small doses, by the buccal method, consists more especially in its not producing intoxication.

"5. The instantaneous action of the sulphate of quinine in temporo-facial neuralgia constitutes a very valuable advantage in therapeutics."—TR.]

19, Langham-place.

#### ON THE ABORTIVE TREATMENT OF PHLEGMONOUS TUMOURS BY SUBCUTANEOUS INCISION.

By M. JULES GUERIN.

Translated for the MEDICAL TIMES, by ALFRED MARKWICK, Surgeon to the Western German Dispensary, formerly Externe to the Venerable Hospital, Paris, &c.

The abortive treatment of phlegm consists, says M. Guerin, in completely dividing its nucleus by means of a subcutaneous puncture, taking care not to injure the internal surface of the skin.

The intention of the operation is, in the first place, to produce the depletion of the abscess and combat the inflammatory action that is necessarily present, and in the second, to favour the evacuation of the morbid principle which has given rise to it. It is important, therefore, that the instrument should reach and cut through the entire thickness of that portion of the cellular tissue in which it is situated. If the horizontal incision does not effect this twofold object, and if a large quantity of blood, proceeding from the surrounding swelling and the central nucleus, does not lead us to suppose that the instrument has given an easy exit to the contents of both, we ought, in addition to the horizontal incision, to make a vertical or transverse section of the tumour. This proceeding is more particularly useful when the abscess is of very large size. In cases of this kind we should not, in all probability, if we confined ourselves to the horizontal incision, produce more than half the result. It will be superfluous to add that the operation ought to be performed with the precautions necessary in all cases of subcutaneous section, namely, that the opening be small and distant from the seat of the disease, and made as near as possible to the base of the cutaneous fold; and that the puncture, for the same reason, be always closed by a piece of diachylon or court plaster.

The instrument suitable for this operation is not indifferent. The ordinary bistoury, and, in fact, every instrument having a broad blade and a continuous edge, is improper. It must be either the dart-pointed director (*sonde carmelée à dard*), or the double-edged spear-pointed bistoury (*bistouri en fer de lance à double tranchant*), which is nothing more than the director fixed in a handle.

It is necessary to allow the director or the bistoury to remain in the wound while the blood is flowing, which may be facilitated by turning the groove over. If a single puncture is not followed by a sufficient discharge of blood to cause the subsidence of the tumour, a second or even a third may be made, but always in different spots. And if, on the following day, the parts are found to be again swollen and painful, the operation must undoubtedly be repeated, taking care to avoid the incisions already made.

The indications in the employment of this method need scarcely be alluded to. Whenever pain is felt in any part of the subcutaneous cellular tissue, accompanied by swelling, tension, heat, and deep or superficial obstruction, recourse may be had to it without the slightest danger. It is generally from

the second to the fourth day of the affection that success is certain. On the fifth or sixth it is probable that suppuration has commenced; nevertheless it may still be employed, for if it has no other result than the relief produced by the depletion of the subcutaneous capillary system, it will not have been practised in vain. A commencing suppuration has been known to be entirely cut short by this method; but it is no longer useful when the suppuration is completely established.

M. Jules Guerin, also, refers in his article to several other cases to which subcutaneous section is applicable. These are—the subcutaneous incision of inflamed glands; of the tunica albuginea in blennorrhagic orchitis; of the eyeball in some case of hydrophthalmia; of the capsular ligaments in recent arthritis; of the periosteum in periostitis, &c.

#### L'ABIELLE MEDICALE.

[As a further illustration of the subcutaneous method, I may mention the plan proposed some time since in the *Gazette Medicale*, by M. Diday, for preventing the formation, or, at least, the suppuration of syphilitic buboes. It consists in subcutaneously dividing the lymphatic vessels by which the virus becomes conveyed to the inguinal glands. The operation is performed by passing a straight, sharp pointed tenotomy knife on the inside of the glandular swelling, and from above downwards, beneath a transverse fold of the skin, made in the direction of the Poupart's ligament, with its edge directed towards the deep structures. An incision, about an inch in length, is then made in the subcutaneous tissues, care being taken not to go to too great a depth, it being merely necessary to divide the superficial lymphatics, and the knife then turned round, and the structures immediately in contact with the internal surface of the skin divided as the instrument is being withdrawn, with its edge towards the integument. The external wound is to be afterwards covered with a couple of pieces of diachylon plaster, and maintained for two or three days so as to prevent the formation of matter. As regards the period at which the operation should be had recourse to, M. Diday remarks, that, when the chancre is in its *progressive stage*, is situated near the frænum preputii, and is attended by an abundant purulent discharge, the operation is then called for, and, moreover, that it would be rational to perform it, considering it is so perfectly harmless—a character which it shares in common with the various procedures arising from the subcutaneous method. But if the chancre be in progress of cicatrization, or merely of reparation, when the glandular swelling commences, then the operation appears to be scarcely required.]—TR.

19, Langham-place.

#### DROPSY—THE NATURE AND ACTION OF THE AGENTS USED THEREIN.

By WALTER YATES, Esq., Surgeon, Nottingham.

June 2nd. Helen B—, aged 22, is suffering from severe dropsical symptoms, under which she has laboured for some time, but which have increased so rapidly upon her of late as to compel her to seek immediate medical advice. She is a stout person, of short stature and pale countenance. She is now seven months advanced in pregnancy of her first child. She complains severely of headache, which is chiefly confined to the frontal region. She has occasional feelings of faintness with some dimness or partial loss of vision. The face is much swollen, as is also the tongue, which is very pasty, white, and tremulous. Her breathing is rather quick, and somewhat laboured. The pulse is feeble, and in number about eighty in the minute. The heart's action is apparently healthy. She has been annoyed with a dull pain in the hepatic region for some months. The entire surface of the body is pale and very puffy; the legs and feet partake of a waxy appearance, they pit on the least pressure of the finger. The abdomen is large, as might be expected from her condition, as also from the peritonitic serous effusion. The labia pudendi are enormously distended with serum, particularly that of the right side. She suffers severely from this continued source of uneasiness, indeed, in a great measure it prevents her



from passing urine, which in quantity is exceedingly limited, and in colour very deep. She is very restless. Bowels tardy; colour of the dejections not known.

Rx. Tincturæ scillæ, potassæ acetatis, aa. ʒss.; tinct. digitalis, ʒj.; aquæ puræ, q. s. ad ʒss. Sumat ʒj. 4tis horis.

Sumat pil. hydr. c. hyosc. gr. v. omni nocte.

In order to relieve the great distention of the labia, I punctured both sides liberally with the point of a lancet; much serum oozed out, with great relief to her pain. Shortly afterwards she passed urine with ease.

3. The headache to-day is almost intolerable. Hirudines vj., temporibus; postea empl. lyttæ pone aures. Utat lot. plumb. acet. lab.

5. Bowels still slow; in other respects better.

Ol. ricini, ʒss. statim sumend.

8. Improving in respect to her head symptoms considerably; and in regard to her dropsical ailment, gradually, but decidedly; bowels still obstinate.

Addet. mist., ʒviij.; extr. elater., gr. j. Cont. alia remed.

11. Has been improving daily, and has continued in the use of the same remedies. The urine is more plentiful; still some headache remains. Appl. vesicator. ad nucham.

15. Is feverish this morning; has some cough with hurried respiration, and a hot surface; is unusually restless; to-day the pain in the region of the liver is scarcely perceptible.

Rx. Tinct. hyosciam., ʒss.; mist. salin. ordin. ad ʒss. Cap. ʒj. ter die.

Rx. Pulv. ipecac., gr. j.; ext. conii, gr. iv.; m. ft. pil. o. n. s.

21. Has taken the above medicine with much advantage; she expresses herself as being greatly relieved, and exceedingly satisfied with her progress towards convalescence. The urine is now plentiful; the motions have assumed a natural appearance; she feels, however, extremely weak.

Rx. Acidi sulphur. dil., ʒj.; decoct. cinchon. ad ʒss., ʒj. ter die sum. Rep. pilul.

24. Improves in every respect; she feels only a sensation of heaviness in the hepatic region; bowels obstinate.

Ol. ricini, ʒss. st.

July 4. Improves, but requires some active agent to keep up the intestinal secretions.

Pulv. jalapæ., ʒj., p. r. n. s. Rep. alia remed.

#### REMARKS.

This person continued to improve decidedly; her appearance altogether has been changing perceptibly up to the present time (July 12th). The face is now pale, but has lost its bloated appearance; her appetite, too, begins to be keener, yet it is not so good as is desirable. Both the head affection and the dropsical symptoms have disappeared. It may be mentioned here that premature labour took place more than a fortnight ago, since which occurrence she has gained ground rapidly.

As to the origin of the disease and the subsequent and successful plan of treatment, there can be no doubt from her general appearance and condition that she was of a phlegmatic temperament of body, with a loose, flabby general texture; therefore, in accordance with a general law, she would be, was, and still is far more liable to infiltrations of serum into these loose tissues, than to any other ills "which flesh is heir to." Touching, however, the primary cause of her malady, we must look not to the head, or to the chest, which in fact became affected, though only in a secondary way; or on reverting to her case, we find that pain in the region of the liver had annoyed her long before she experienced any inconvenience either in the head or in the chest. This uneasiness in this particular region of the body was unnoticed by the patient herself, except in regard to its mere presence, but it led me to suppose that the original and more prominent exitor of all the existing evils was to be found in the liver though this cause was not very evident from any examination of the stools, or from the condition of the skin or conjunctivæ, since no remarkable alteration had, as far as I could learn, taken place in regard to the

one or other, save that the stools became rather darker than natural under the influence of medicine, and that the skin, universally, was in some degree paler; nor again, from any external examination could either enlargement or hardening of the liver, or both be detected. This very desirable object was, for the most part, frustrated in consequence of the great amount of œdematous swelling existing and generalized throughout the whole body. Yet, from the negative proof of the absence of all heart-affections, and from our knowledge that cerebral disorder is not (so far as I am aware) a cause or origin of universal dropsy, we are led to infer that the liver, by exerting a certain degree of pressure upon the abdominal venous system, had given rise to, and was keeping up, the anasarcaous swelling. It may be argued that compression of the portal system of veins, whether from induration of the hepatic gland, or from other causes, cannot produce general dropsy. It must be borne in mind that the portal vein is not the only vein liable to pressure, and consequently to retardation, and, in some cases, to complete obstruction of its current, from that abnormal state of the liver just named. There is a large vein (the vena cava inferior), the reservoir of all the ordinary veins of the whole of the lower half of the body, which is also subject to the same compression, and to similar, or perhaps greater, retardation or obstruction as regards its blood. Now, in the one case an ascitic effusion will be the consequence; in the other, dropsy, chiefly of the lower extremities. In the case under consideration the one cause (hardening and enlargement of the liver) was aided by other causes—by great debility, and by her advanced pregnancy. Reason leaves us this inference, viz., that there had been at a period not long gone by, and perhaps even there was at this time going on in the liver, some slow inflammatory process, whence the disordered state of the organ and the evils arising therefrom. Now, for this morbid condition of the liver, alterative doses of mercury, in conjunction with hyosciamus, were given with great advantage, as appears from her ease; at the same time she was placed under a diuretic treatment, which in a great measure aided her recovery.

The brain symptoms undoubtedly arose from the presence of the more active principles of the bile and of the urine in the blood, as proven by their disappearance as the urine became more plentiful, and as the hepatic pain decreased.

The irritation in the bronchial membranes was due in a measure to taking repeated colds, the consequence of a delicate mucous surface; it subsided quickly, however, under treatment. Her abortion confirms the assertion that the malady was partly owing to the existence of a *fœtus in utero*, because after its expulsion the anasarca of the lower extremities rapidly subsided. On the 21st of July no dropsical swelling whatever remained, except what was due to mere debility, for which she was treated with agents of a tonic nature.

Her ultimate and complete recovery points out the diagnosis to have been correct; the plan of treatment to have been in the highest degree useful; and, "last but not least," the absolute necessity of forming a steady yet confident opinion of the nature of the ailment in the first instance.

Attention may be called to the exhibition of squill in this case. A supposition to the effect that this agent seems to exert a particular influence over the liver, under certain conditions, may not be out of place. We are all conversant with the power which it exercises over those two great blood-cleansers—the lungs and kidneys, at least over the secretory apparatus of each; and in respect to the vital fluid, these organs perform offices the most opposite. Why, then, may it not influence another and a third great viscus, whose functions are single and different also? "The liver it the lazaret of bile," you know. Presuming this to be an assertion, it cannot be opposed on the ground that these several glandular bodies are not purposed for a common act, since the agent employed (squill) does not exert an influence in common over the individual organs to be acted upon—the lungs, the kidneys, and the liver. In the lungs we know it to be of service by inducing a natural action on the mucous lining; in short,

by stimulating a surface already too much relaxed. I feel inclined (although out of order) to reprobate that very common and thoughtless practice of giving squill in the first stage of bronchial affections, in which the mucous membrane must be very harsh, dry, and swollen. Most people admit squill to be a stimulating agent, and when combined with ginger, ammoniacum, &c., as it is, in the form of the ordinary pill mass, who will deny its excitant properties? Yet there are persons who still persist in its untimely and indiscriminate employment, forsooth, because their grandmothers did the same thing before them. In a second (the kidney) it is said to act more particularly on its nervous apparatus, increasing, as it undoubtedly does, the flow of urine, whilst in the former case it directly diminishes the exudation from the secreting membrane. What, then, is its action upon the liver? If it have any at all, and I am strongly inclined to think it has, it must be in the first instance, and specifically, upon the mucous secretion; and in the next place, and indirectly, upon the biliary flow. It is not unreasonable to suppose that it causes an augmentation in the flow of mucus, and of course, in this way, a dilution of the bile must follow, hence an explanation of its greater flow. It does this, "methinks," chiefly by exciting the mucous secretory apparatus of the duodenum, which excitement is communicated to, or carried along, the continuation of the lining into the liver.

Doubtless, much depends upon the form in which medicine is administered—whether certain things undergo digestion when taken into the stomach in one form, or are taken up by the veins of the stomach, or in any other way, when given in a different shape, is a matter of the greatest interest; it is a question, however, which cannot be entered upon in this paper; suffice it to say that much remains to be explained on this head.

Lastly, a few words in regard to the action of the acetate of potassa. In this case, as well as in every other of this kind, it may not be uninteresting to suggest a new mode of action. It has reference not to its supposed stimulating effect upon the renal nerves, but to its more immediate and primary effect upon the blood. It appears to me to be introduced into the circulation through the veins of the stomach—of course in a very fluid state. Once here, it is not merely and singly for the purpose of being carried along with the current of blood to the kidneys, but for a far greater object. In all probability it becomes intimately incorporated with the blood itself: it seems to render it more fluid, in short, more homogeneous and far less vital. It does this, in my opinion, through the operation of an ordinary endosmosis going on between the two active agents, viz., the inorganic salt (or partially inorganic), and the organic textural corpuscles—so that these corpuscles having in their interior a fluid denser in itself than this saline solution, it becomes drawn, as it were, within the corpuscular disc, and in this way an enlargement takes place, and subsequently a rupture or bursting of the vesicle, by which the blood, as a whole, is rendered thinner and necessarily less textural. This is owing to the breaking up of the chief constituents of the blood. Now, as fibrin is made up, or rather formed, from these very corpuscles—that is to say, as fibrin is a mass of corpuscles more highly organized, or further advanced towards independent vitality, it will be at once evident that the introduction of acetate of potash into the system is a means of preventing or impeding this particular process. Granting this, how readily may it be imagined that a greater amount of urine may pass off by the kidneys, seeing that more fluid must pass through these glandular bodies than can occur under ordinary conditions.

The authorities of the School of Pharmacy of Paris, having called the attention of the authorities to the scarcity of leeches, the Minister of Commerce, before deciding on the means that should be taken to remedy the evil, is seeking correct information on the state of the leech fishery. To obtain this, he has addressed circulars to the authorities of the different departments, as well as to the different local medical societies.



## OCCURRENCES IN PORTO RICO AFFECTING THE LIBERTY AND PERSONAL INTERESTS OF A MEMBER OF THE MEDICAL PROFESSION,

By Dr. D. McCONNELL REED.

In pursuance of a plan which I had formed at an early period of my medical career (viz., to visit successively and practise my profession during a certain time at the principal cities in the West Indies), I arrived at Porto Rico about the close of the year 1840. When in St. Thomas, however, which place I visited previous to proceeding to Porto Rico, I was informed by my friend, the Baron Von Britton, the principal resident Danish physician, that I should have great difficulty in obtaining a license from the Government, in consequence of the extreme jealousy that prevailed, on the part of the authorities, in reference to the establishment on the island of liberally-educated foreigners. The effect, however, of this information, far from discouraging, only made me more anxious to effect my purpose, as I supposed that under such a Government there was something to be learned. With this view I procured, in St. Thomas, such letters of introduction as I thought would be of service to me. Among others I was provided with an introductory letter to Mr. Jacobs, the governor of the Branch Colonial Bank, whom (from his position) I understood to be the most influential foreigner in the island, and who (being a married man) was desirous of the establishment of a British practitioner at Porto Rico. Besides, I was the bearer of a letter to the Spanish mercantile house of Manuel Gonzales and Co., of whom one of the partners, being intimate with the island secretary, was the means of procuring for me a friendly interview with that functionary; during which I informed him that it was my desire to reside and practise my profession in the island for some time; and, exhibiting my British medical testimonials, I asked him if he thought the Government would make any objection to my desire. He informed me in reply, that no one, however well qualified by his scientific acquirements, or well provided with foreign testimonials, could be permitted to practise the profession of medicine under the sanction of the Government, without the license of the Junta Superior Governativa y Medicina y Cirugia of Madrid, or of that branch of it established at the Havannah. I expressed my readiness to comply with the requirements of the Government in this respect; but as the hurricane season was then prevailing, I asked leave to defer my trip to the Havannah until it was over, and to be allowed in the meantime to practise my profession privately among my friends, without being considered as a transgressor of the laws. He replied, that, if I would name any particular part of the island where I had the greatest number of friends, he would mention my request to the Governor, and let me know his decision. I thanked him, and we parted. But as I was retiring from the Government-house, in company with my Spanish friend, to whom I was indebted for the friendly interview above referred to, he informed me that I had made a very favourable impression on the secretary, and that he was sure he would do what he could to serve me. Now, the governor of Porto Rico at that time was General Lopez Banos, who had been for some time an exile from his own country and a refugee in England, where, I learned, he had experienced great kindness from a widow lady, which made him partial to the English people; and (to his praise be it spoken) he did not forget his friend in distress; for while he was receiving pay as the governor of Porto Rico, he allowed the widow £100 a year in gratitude for her past kindness. From General Banos then, under these circumstances, Secretary Olhoa had no difficulty in procuring for me leave of residence at the town of Guayama with my friend George Gifford, a prosperous American merchant, at whose beautiful residence I passed the time very agreeably, and composed the greater part of the work on fever which I have lately published. But, in order to render my stay at Guayama more agreeable, the good

secretary furnished me with two letters of introduction, one to the district commandant, Colonel Villodas; and the other, to one of the governor's aide-de-camps—a high-bred Spaniard, who was on a visit at the commandant's. Through these gentlemen I became acquainted with the officers of the military detachment stationed at Guayama; from all of whom I received the greatest kindness, especially from Don José Soto, the surgeon of the detachment. It will at once be perceived from this account that I did not want for acquaintances, and, I may add, for patients, such is the estimation in which a British practitioner is held by the inhabitants. This gleam of sunshine in my chequered history, however, was not permitted to last long: my friend General Banos was recalled, and with his retirement all my good fortune ceased. General Mendez de Vigo succeeded him; this man was a tyrant—almost every act of his government proved it; and especially the troubled state of the island after his arrival. The inhabitants in the city of Porto Rico began to murmur, but, as is the case in Spanish countries, they did not dare to reveal the cause of their discontent; stories of the precipitate retirement from the island of certain native inhabitants of political importance began to float about, and eventually rumours of insurrections among the slaves. I was in the habit of occasionally visiting the estate of a British subject, some distance from Guayama, for the purpose of noticing the effect of a course of strichnine, under which I had placed the manager, Mr. Pearson, an Englishman, who had been for some time suffering from partial paralysis of the lower extremities. On every such occasion I called on my friend Villodas, for his passport. On one occasion, however, he informed me that the new governor was very particular, and that he thought I would do well to be cautious; this appeared to me to be a very unnecessary warning, as I was not conscious of having been the reverse. By this time my permit to reside at Guayama (which was originally for four months) had expired; but, as I did not wish to leave some patients whom I had under my care, I applied, through my friends in the capital, for an extension of it, which was with difficulty granted by the new governor.

I took my departure from Porto Rico for the Havannah in the early part of 1841; and having obtained my licenses from the medical and surgical junta, endorsed by the government functionaries of the Havannah, empowering me to practise the profession of medicine throughout the whole of the Spanish dominions, I returned, about September the same year, fully persuaded that there would be no longer any impediment to my professional and personal liberty. And, certainly, considering what was the motive of my undertaking so expensive a journey to the Havannah, it was reasonable to suppose that on my return I should have been received as a friend, and not treated as an enemy, a vagabond, and a spy. But a guilty conscience is a very common cause of personal accusation and exposure. Had General Mendez Vigo not been aware that there was something in his government which could not bear the inspection of an enlightened foreigner, he would not have been so anxious to interfere with my personal liberty. This, however, he could not reconcile himself to leave unrestrained. On my return to Porto Rico the government could no longer interfere with my freedom of practice, on the score of my being an unqualified person; but every restraint, arising from unnecessary delay, was imposed upon me. I was first told that my diplomas must be registered before I could commence practice; to this I acceded, by leaving the papers at the secretary's office. But day after day passed away, until several weeks were consumed, in fruitless attempts, on my part, to effect that, which, with good faith on the part of the government, might have been done in five minutes. They then told me that I must become domiciled, which is another term for swearing that one is a Roman Catholic; but I objected to this, on the score that I had already taken the oath administered by the supreme medical junta at my inauguration as a member of that body. (This is an oath which, in my opinion, any orderly, right-minded

Christian might conscientiously take when imposed by those in authority, inasmuch as it implies no more than a medical man's duty.) I was, however, told by a British resident, whose character I respected, that the domicile had now become a mere formality, and that, therefore, it could not be considered a matter of conscience. This might be very good reasoning for him; but I am sorry that I allowed it to prevail on me to comply with the requisition on the part of the Government, although the lies that were necessary to be told in order to make me out a Roman Catholic did not devolve so much on myself as they did on the paid witnesses employed by my Spanish agent. Still, as those lies were told in order to serve me, I must acknowledge that the weight of turpitude in the matter, next to those who established the unjust requisition, fell upon me, for being so weak as to comply with it; although I positively told the chaplain to the Governor's Council that I was no Roman Catholic, but a stanch Protestant, and that my complying with the *formality* of the domicile was no proof of my being a Roman Catholic. As soon, however, as I had obtained my domicile, I expressed a wish to visit a part of the island where I understood my medical services were required; but, as my diplomas were not yet registered, I said I would leave them in the keeping of the secretary until he thought fit to register them; and I obtained a passport for my journey. I had not been absent, however, many days from the capital when an order from the governor was communicated to me through the medium of the commandant of the district where I was residing, to the effect that I must immediately return to the capital. I replied to the commandant that I had come to that part of the country (the town of Mayaguez) on my own business; I was attending several of the inhabitants who were suffering from chronic intermittent fevers, neuralgia, strictures, and ulcerated extremities, whom I could not well leave; and that it would be inconvenient at that time to leave the place; but as I was not employed in any way under Government, I expressed my surprise at the order, and told the commandant that, with his permission, I would delay my departure until I could receive an answer to a letter which I proposed writing to the governor, to which the commandant civilly assented. I wrote the letter, but the only answer which I received to it was the reiteration of the governor's order, through the commandant, for my speedy return. When I arrived at the capital, I repaired to the Government-house, in order to ascertain the governor's motive for ordering my return. He did not, however, condescend to gratify my reasonable inquiry: but he told me, that if he could not prove what he suspected me of, he would immediately give me my passport. I told him that I thought it would be quite proper that either I or any other man should suffer for transgressing the laws, on sufficient proof of his culpability; but that, as I had been particularly careful to observe them, I felt the course that he was pursuing towards me was not only uncalled for, but, in my circumstances, peculiarly oppressive and unjust, particularly as it was at the suggestion of the Government, and depending on its good faith, that I had incurred the heavy expense of £200, to say nothing of the trouble and loss of time I had sustained in acquiring testimonials for the purpose of securing the protection of the Spanish laws, in the exercise of my profession; but, as he acknowledged that he was acting on suspicion alone, I asked him to tell me plainly what he suspected me of. This, however, he declined doing; but told me that the Government (contrary to the express permission of my diplomas, endorsed by the Government authorities of the Havannah) could not permit me to practise just where I pleased; but that I must confine my practice to the city of Porto Rico. Of course it was out of my power to successfully oppose the garrison of Porto Rico, which might, if requisite, have been arrayed against me in order to compel obedience to the governor's orders, just or unjust. The only successful opposition, therefore, which I could hope to make was to protest; which I did, both verbally and by writing. The following is a copy of the letter which I addressed to the governor on that occasion:—



"Porto Rico, October, 1841.

"To his Excellency the Captain-General and Governor.

"Excellent Sir,—I have the honour to submit, that conformity with your excellency's order to reside in the capital will be very prejudicial to my private interests as an individual; and as a subject of a Government, as far as I know, upon terms of the strictest amity with the Government of Spain, I had hoped that no objection would have been made by your excellency to the choice of my residence.

"I am domiciled and provided with Spanish diplomas, and, according to the treaties which I believe to exist between the Governments of Spain and Great Britain, I am entitled, under these circumstances, even in the Spanish colonies, to the same rights and immunities as a Spanish subject. And, if such is the state of the case, I am not aware of having done anything to forfeit the rights and immunities which I am entitled to enjoy in common with other domiciled persons. I have money due to me in the country which I wish to collect, and my prospect in Mayaguez alone, from medical practice, is certainly equal to six thousand dollars annually. The outlay incurred by my journey to, and expenses at, the Havannah, in order to procure Spanish diplomas, was very considerable, which is an expense incurred in vain (not to mention the loss of time), if I am not permitted to exercise my profession to the best advantage; in other words, in the place which offers the greatest prospect of success. In consequence of these circumstances, I beg leave, once more, to entreat your Excellency to allow me to change my domicile to Mayaguez, and to afford me the facility of attending to my interests. This justice I expect and entreat from the goodness of your excellency.

"But, should your excellency still find it necessary to refuse my request, then I entreat your excellency to order my diplomas to be returned to me, even though unregistered, and to grant me my passport to go by the first steamer to Jamaica.

"I have the honour to be, with the greatest respect, your excellency's most obedient and most humble servant,

(Signed)

"D. M. REID,  
Lic. Med. et Chirurg."

APHONIA OF FIVE MONTHS' DURATION  
SUCCESSFULLY TREATED BY THE IN-  
HALATION OF THE VAPOUR OF IODINE  
(QUININE AND IODIC ACID BEING  
GIVEN AT THE SAME TIME INTER-  
NALLY).

By EDWARD MONKS, Esq., Norwood.

Isabella Thorn, aged twelve years, of phlegmatic temperament, united with a plethoric habit, was received under medical care in January, 1842, suffering from catarrh. The usual treatment was adopted, and in about three weeks the febrile symptoms, cough, &c., passed off, but the voice remained low and hoarse, and in a week or two gradually sunk into a whisper, and was inaudible, unless the ear was placed near the patient (as far as could be seen, there was no apparent organic lesion of the organs of speech). This atomy or paralytic state of the vocal powers continued, and the friends of the patient growing anxious on finding that the voice did not return with the approach of summer, I was a second time consulted early in May, 1842. The patient had considerable *embonpoint*; she was treated by emetics and aperients, and subsequently by mercurials, iodide of potassium, with cinchona and astringent acidulated gargles. This course of treatment was steadily persevered in till the following month, June 25th, without the least amendment, when, on the eve of making arrangements for her removal to the seaside for change of air, it occurred to me that inhalations might probably be useful. Accordingly, therefore, I prescribed the inhalation of the vapour of iodine in the ordinary way, from one of Woulf's bottles, for fifteen minutes twice a day, and at the same time ordered the following mixture:—

R. Quinæ disulph., gr. j.; acid, iodic., gr. iij.;  
tinct. aurant., 3 ss.; aquæ c. syrup., ad 3j. m. t.d.  
July 2, 1846. The voice had become more audi-

ble, but had a hoarse sound. *Inhalatio et mist. repetantur ut antea.*

July 10, 1846. Voice natural, the enunciation being full and clear. Discharged.

I had an opportunity of seeing the patient a few months since, when, on inquiry, I found her voice had continued permanently good.

Having named the quinine mixture, I may observe, that I frequently prescribe the disulphate of quinine, in combination with iodic acid, as an elegant tonic in diseases of debility, in phthisis, and as a finish in the treatment of chronic inflammations and syphilis.

Poor-law Schools, Norwood, Sept. 23.

#### ON ABSORPTION OF THE ALIMENTARY FLUIDS FROM THE STOMACH AND BOWELS, AND ON THE BLOOD'S CIRCU- LATION THROUGH THE LIVER.

By C. SEARLE, M.D.

I believe I may venture to say, without fear of contradiction, that the generally acknowledged powers of the blood's circulation through the system in general are the heart's power, in its two-fold office of a forcing and a sucking pump, and the action of the capillary vessels: the contraction of the left ventricle propelling the blood through the arteries, and the dilatation of the right auricle (aided by the respiratory movements of the diaphragm and walls of the chest, and atmospheric pressure *ab externo*) drawing or aiding the blood in its return by the veins, to which it is impelled from the arteries by the action of the capillaries.

Now, an essential condition to this action of the capillaries, as experiments have proved, is the aëration of the blood. Venous blood immediately arresting the circulation in these vessels, it becomes hence necessarily a problem—how the blood of the portal system can be circulated through the liver? seeing that the blood for circulation through the liver is wholly venous, and beyond the influence of the heart's power as the moving cause. This is a problem which, I am of opinion, admits of ready solution in the admission—that the stomach and bowels are, like the cutaneous, a respiratory surface; the blood becoming here re-oxygenated to an extent sufficient to enable it to excite that amount of capillary action necessary to its circulation through the liver. In support of these views I may mention the experiments of Majendie, who, analysing the gaseous contents of the stomach and bowels of three criminals soon after decapitation, found eleven per cent. of oxygen in the stomach of one, and carbonic acid and nitrogen in the intestines of all of them. Now, when this fact, that oxygen was discovered in the stomach but not in the bowels, is taken into consideration with another, that in the process of mastication much air must be combined with the food, as well as swallowed perpetually with the saliva, and received into the stomach also in combination with cold water, which (in common with the rest of the animal creation) is man's proper beverage, here, it will be obvious, is an abundant source of power, admitting oxygen to be its essential source. This there can be little doubt of when we see that the capillary vessels are excited by its agency, and that in insects, and others of the lower tribes of the animal creation, the circulation is carried on in vessels without a heart, by the agency alone of the air, which in insects is brought by the spiracles into immediate contact with these vessels in every part of the body.

The surface of the stomach and bowels I should therefore say is a respiratory surface; and with the absorption of the food by the veins and lacteals on their surface, oxygen is also absorbed, by the agency of which, excitement is imparted to the blood of the liver; the gastric and mesenteric veins being the principal absorbent vessels, as Majendie's experiments unquestionably prove; the lacteals, however, also being, I am of opinion, excited to fulfil their duties by the same agency—that is, by the excitement imparted to them by their oxygenated fluid contents, aided, no doubt, by the dilatation of the right auricles influencing the circulation in the vessel into which the thoracic duct opens. The blood, being thus circulated through the liver, draws after it necessarily the streams united in the portal vein; and this I further believe

to be the absorbing power of the fluid sustenance from the stomach and bowels, aided by the operation of another power of equal magnitude, which I shall now point out. Majendie proved that absorption from all the surfaces was carried on in the inverse ratio with the distention of the blood-vessels. Now, as the blood circulating through the liver (by the excitement imparted to it by the agency of the oxygen absorbed into it from the stomach), on the bilious secretion being derived from it, is much reduced in quantity, it, necessarily, draws upon the current of the portal vein, and this is continued as an absorbing power (the vessels becoming thus partially emptied) in the gastric and mesenteric veins, and thus is the aliment imbibed.

These views are confirmed, I am of opinion, by the fact that ruminating animals—which are all vegetable feeders, requiring therefore a larger amount of food than others, and an increased supply of oxygen for the maintenance of a more active condition of the liver and lacteal absorption—in chewing the cud, thus obtain the oxygen required; animalizing the product most probably, at the same time, by the nitrogen acquired in the same process.

Bath, Sept. 20.

### HOSPITAL REPORTS.

#### MEDICAL TIMES PRIZE REPORTS

THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

#### MEDICAL CASES.

SUBJECT—DROPSY.

(Continued from page 415, vol. 14.)

When the body is in a state of natural health, the functions of nutrition, secretion, and excretion are performed in a regular and proper manner; but in the performance of these all-important functions various vital organs are employed, and these organs are often liable to undergo changes, which not only derange the function over which they preside, but the whole system suffers secondarily. In the case which I am about to mention, I imagine that the circulating system is the immediate cause of the appearance of the dropsy, for that is the effect of the changes concerning which I shall speak. I do not say that the circulating system is the first to be affected, for we often meet with serious, and often fatal, derangement of it without any dropsy; but when certain vital organs become diseased they undergo an organic change of structure, and, as I will hereafter explain, they produce a certain change in the circulation which causes the effect concerning which I am now speaking.

There are certain causes, too, which produce dropsy without any organic change of parts: for instance, we meet with cases of anasæra after sudden exposure to cold, and it is not an uncommon thing to see it after scarlet fever; these cases yield readily to treatment; there is no organic change, and, consequently, when a cure is effected it is permanent. I imagine that these cases depend upon a disordered state of the capillaries supplying the skin; and the immediate cause of the dropsy is the same as it is in the other cases, with the exception of the absence of any organic change of structure. The circulation in the capillaries supplying the skin is for the time impeded, and the loaded circulation is relieved by the effusion of serum. Unfortunately, in most cases, there is some organic change of structure in a vital organ, and, consequently, our treatment can only alleviate the symptoms; we may sometimes remove them for the time, but we cannot cure them, the primary cause remaining, and the disease is therefore always liable to return. Perhaps one of the most common causes of this disease is an affection of the main organ of circulation itself; the heart becomes enlarged; it has not sufficient power to contract upon the fluid contained within its cavities, and consequently becomes an obstacle to the circulation; the return of blood to the right side of the heart is impeded, and the blood is thrown back upon the venous system. It is necessary that something should relieve this, or life could not exist; and to effect this the capillaries throw out fluid to relieve the loaded circulation. [Here we see that the



dropsy is merely a symptom of a much more formidable disease. I have selected a few cases to illustrate this subject, and will now make a few remarks upon them:—

**CASE 1.**—Thomas Silk was admitted with anasarca of the lower extremities; this was of six weeks' duration. The pulse is full and sharp; there is a foul tongue; he has had a cough with expectoration for two months, but can draw a deep breath without pain; the urine is scanty and high-coloured, but not coagulable by the ordinary tests; and, lastly, a loud valvular murmur can be distinctly heard.

There then is, as far as we can judge, a pure case of disease of the heart; we have no reason to suppose that any other organ is affected. The urine is not coagulable, and its specific gravity is not lowered. There is no ascites, and the sound of the heart itself marks the disease. The cavity of the heart is enlarged, while the orifice through which the blood has to pass retains its natural size, and, consequently, the rushing sound which we hear is produced. We have the same sound produced by another cause, but then the anasarca, and the other symptoms attendant upon it, are not present. The heart may be of its natural size, but the force of the circulation through it may be augmented; here, then, the force of the current is too great for the size of the orifice through which it has to pass, and we have the same blowing sound. We often meet with this in hysterical girls, in whom there is no disease of the heart. In such a case as Silk's, of course, the exciting cause of the disease cannot be removed, but much may be done to alleviate the symptoms; in fact, the anasarca in this case was, for the time being, entirely got rid of by the remedies employed. In the first instance he took a combination of digitalis, squills, and blue pill, which acted very efficaciously as a diuretic; his mouth became sore, and he then left off the pill, and took the bitartrate of potash, and was enabled to leave the hospital completely relieved, as far as the anasarca was concerned.

**CASE 2.** Elizabeth Campion, is also a well-marked case of dropsy from disease of the heart. There was palpitation of the heart, dyspnoea rendering it impossible for her to lie down in bed; there is quickness of breathing and pain across the lower part of the chest, especially in the left side. There is some anasarca of the lower extremities, but this is described as having been much greater; and there has been some swelling of the abdomen. Here we have disease of the heart occurring in an elderly female, and, from the pain expressed during life, we might easily imagine that there was disease of the aorta as well; the pain in such cases being often very acute, and not met with in simple enlargement of the heart, that there was disease of the heart was made manifest by the anasarca, which never happens in cases where the aorta alone is diseased, the heart being unaffected. There is another thing worthy of remark in this case, and that is, the history which the patient gave of the subsiding of the swellings; the unhappy patient looking upon the dropsy as the sole disease, and looking upon its disappearance as a most fortunate circumstance, but in truth it is only the precursor of death, which in many cases occurs suddenly, either from effusion into the chest or pericardium. This patient died shortly after her admission, and on examination, after death, we found some slight effusion into the pericardium; there was effusion into both pleuræ; and both lungs, through the greater part of their extent, were loaded with red, frothy serum; and this fully accounts for the termination of her life by suffocation. There was dilatation of the aorta, and a considerable atheromatous deposit on its internal surface. The pulmonary apoplexy may be accounted for in this way: there was disease of the aortic valves, and consequently an impediment to the return of blood from the lungs; therefore some of the smaller vessels ramifying through those organs gave way and poured out blood into their substance. In these cases our grand object is, if possible, to get rid of the anasarca; and, where there is no disease of any other organ, this may be done by diuretics or purgatives. By such means we may often succeed in removing the anasarca, so that, in the

higher classes, by continuing the remedies, life may be prolonged for many years. There is another very important organ which, upon becoming the seat of a particular disease, gives rise to anasarca: I allude to the kidney. We have general anasarca, the pulse is not weak, there is no perceptible enlargement of the heart; the urine is copious and high-coloured, but, on examining it, we find that its specific gravity is much diminished, and that it contains a considerable portion of albumen, varying, of course, according to the extent of the disease.

The case (case 3) of William Brinkworth is a very interesting case of this kind. Here we have all the symptoms of this disease proceeding to a fatal termination, but, unfortunately, his friends objected to the examination of the body; but, if this had taken place, no doubt the kidneys would have been found in the most perfect state of granulation.

In the other two cases, David Davis (case 2, delirium tremens) and Charlotte Brooks (case 4), we have the same disease, but not having proceeded to the same extent that it had in Brinkworth. The kidneys in both were large and congested, which is always the case in an early stage of the disease, though afterwards they become atrophied. Unfortunately for these two patients, the disease of the kidneys was combined with disease existing in other viscera, rendering the treatment more complicated, and the alleviation of their symptoms more difficult to be achieved. In the treatment of these cases what remedies are we to employ? If we use diuretics we do but add fuel to the flame; we must, therefore, trust principally to purgatives. If the action of the skin can be augmented, and perspiration can be produced to any amount, it is often of great service; but there is generally much difficulty in producing this effect. The remedies which seem to be most generally used, and often with marked benefit, are the neutral salts, with vegetable acid bases; potassæ tartras; potassæ acetat, in large doses—for instance, pot. bitartratis, ℥ss. omni mane, which in some instances will destroy the coagulable quality of the urine, where the disease has not proceeded to too great an extent. I have heard from good authority the following account given of the *modus operandi* of these neutral salts, when they destroy the coagulable quality of the urine:—"An alkaline property of the blood is necessary to hold the particles of albumen in solution; if this be lost, the albumen is drawn off by the kidneys. A neutral salt with a vegetable acid base supplies a larger quantity of alkaline matter to the blood, and prevents the albumen being drawn off by kidneys, causing it to be held in solution by the blood."

The species of dropsy concerning which I have been hitherto speaking has consisted in an effusion of serum into the cellular tissue in various parts of the body, called anasarca; but there yet remains another kind, in which the fluid is poured out into various cavities, constituting hydrothorax, hydrocephalus, and ascites; it is concerning this last form that I wish to make a few remarks. There are two states of liver which may produce ascites; they differ in this all-important fact materially, that the one will yield to treatment, whereas the other is incurable. We meet with one occurring after an attack of ague; the spleen and liver become affected, and occasionally ascites follows; but this will yield under much the same plan of treatment that is employed during the continuance of the intermittent fever. Bark administered in large doses will remove the affection of the liver and spleen, and having removed the exciting cause the dropsy will disappear, and will not return. Not so where there is an organic change of structure in the liver; there, as in all cases where an organic change has taken place, it is beyond our power to effect a cure; we cannot renovate or restore to their pristine state organs which have already undergone this change; and, therefore, all we can hope for is to alleviate the symptoms and ward off the impending fate as long as possible. In the case of David Davis (case 2, delirium tremens) we meet with disease of the liver causing ascites, and also in the case of Brooks (case 4) we have it from the same cause; and the

post-mortem examinations of these two bodies will illustrate the nature of the disease. We here see the sharp margin of the liver destroyed and rounded off, giving to the organ that peculiar rounded form which we meet with in such cases. The dropsy depends upon an obstructed venous circulation, and various reasons have at different times been given to account for this obstruction; but I think one of the most reasonable is, that it is caused by a thickening of the capsule of Glisson, which retards the return of venous blood from the intestines by pressure on the portal veins, and the congested capillaries pour out fluid to relieve the circulation. The nutrient artery is also pressed upon, and hence the atrophied state of the organ. The cellular tissue then becomes condensed, and the liver by this means is puckered up, constituting the hobnail liver, or cirrhosis. In these two cases the disease had not proceeded far enough to produce this appearance.

In the examination of Davis there was very little fluid found in the abdomen; this had, in all probability, been carried off by the skin in the profuse perspiration which accompanied the delirium. These two cases did not consist in disease of one single organ: in both, the disease of the liver was complicated with disease of the heart and kidneys; and such complications are by no means uncommon in these unfortunate cases.

In Joseph Dean (case 5) we meet with ascites, but the ascites was combined with jaundice, and this not of the common kind. The poor fellow was of a peculiar greenish-yellow hue—such a colour as is always indicative of some serious disease of the liver, generally malignant. In most cases of tubercular deposit in the liver there is seldom jaundice, and with contracted liver we seldom have it to this amount; and we might, therefore, suppose that there was some mechanical obstruction to the passage of the bile existing in addition to the organic change. The obstruction might have been caused by a gall-stone; but the patient had every appearance of labouring under malignant disease,—the peculiar colour, his previous loss of flesh, and the extremely rapid emaciation, really dreadful to behold, almost marked the disease as one of a malignant nature.

The examination after death clearly proved this: there was extensive disease of a malignant character, and there was also an obstruction to the passage of the bile, but such an obstruction as no human art could remove. In these cases of ascites from disease of the liver, it is necessary to get rid of the dropsy with as little stimulation of the organ as possible; and when the distention becomes very great we may seek relief for it by the operation of tapping, but not until it is absolutely necessary, for the operation is not unattended with danger from peritoneal inflammation, and it very soon becomes necessary to have recourse to it again.

In addition to ascites or an effusion of fluid into the cavity of the peritoneum, we meet with another form of dropsy very much resembling it, as far as outward symptoms are concerned, and this is ovarian dropsy. The fluid here is not effused into the cavity of the peritoneum, but is encysted, being contained within the ovary. This form of dropsy, however, often proceeds to an enormous extent, and we have a good example of it in the case of Hannah George. In such a case as this, how are we to distinguish it from ascites? In ascites, where the intestines are free, they invariably rise to the surface of the fluid, in whatever position the patient may be placed, and they there give out a resonant sound on percussion. This is not the case in ovarian dropsy: the enlarged ovary rises in front of the intestines, which, from being tied down by the mesentery, are pressed back by the tumour, and, if any resonant sound be given on percussion, it is in the flanks, and there alone, whatever be the position of the patient. The same remark holds good with regard to the umbilical region, for, however much the position be varied, we always meet with a dull sound in that situation. These remarks, of course, only refer to the advanced stage of ovarian dropsy, for, in a more early stage, the situation of the tumour, and the fact that the fluid is not equally diffused throughout the whole abdominal cavity, and but circumscribed in extent, will at once mark the nature of the disease. Now, with regard to the



treatment. The fluid, when it increases to a great extent (which it generally does), should be evacuated, and this should be repeated as often as necessary; the intervals between theappings become shorter, and generally after some length of time the patient dies, completely worn out by the disease. Of late years the operation of removing the diseased ovary has been resorted to, sometimes with success, but often with a fatal result; certainly it is a grave operation, and it behoves the physician to pause and think before recommending it, and the surgeon also previous to performing it.

#### KING'S COLLEGE HOSPITAL,

Portugal-street, Lincoln's Inn, Sept. 16th, 1846.

Severe injuries from a fall—Fracture of both lower extremities—Fracture of ribs and wounded lung—Recovery.

Abraham Wilson, a fine healthy man, aged forty-two, whilst mending a skylight at the top of a house in Lincoln's Inn fields, fell through and was precipitated to the bottom of the house, a distance of sixty feet. In his fall he came against the staircase; he was admitted immediately.

August 6th, 10 A.M. At this time he was nearly insensible; moaning dreadfully; merely asking if he had fallen, and not being able to give any account of himself; countenance pale, and smeared with blood from a wound in the left temporal region, which had apparently divided the temporal artery; the right thigh is found to be broken at its middle third; the left fibula is extensively fractured, being completely smashed—the whole of its middle third; there is also fracture of two or three of the ribs on the right side, and seven contusions of the head and left arm; some ammonia was given; the wound on the head was closed; the fracture of the thigh easily reduced, and Dessault's splints applied, and a side splint to the left leg.

Ten p.m. Since his admission he has become more sensible; complains greatly of pain at the back of the head, and in the back and chest corresponding to the fractured ribs, and great oppression of breathing; has twice spit up some clotted blood; respiration 28; pulse 70, feeble; pupils natural.

R. Tinct. opii, m. xl.

7. Has obtained no rest; was delirious in the night; complains of great pain in the back and right side of the chest; breathing catching at times; feels very thirsty; pain in the head; pupils contracted; has spit up a little more blood; respiration 32; pulse 96, full.

R. Ant. pot. tart., gr.  $\frac{1}{4}$ ; pil. opii, m. iij, tertius horis.

Nine p.m. Has become worse; breathing is much more difficult; complains of great pain on the least attempt to inspire deeply, and cannot bear the least pressure over the right side; tongue furred; thirst; pulse full and firm, and rather sharp. Venæ sectio statim, ad.  $\frac{3}{4}$  xiv; morph. mur. gr.  $\frac{1}{2}$ .

8. Experienced very great relief from the bleeding; is not in so much pain; resp. 27; pulse 100; less pale; respirations freer; the sounds over the right lung are very faint, and mingled with a moist crepitant rale, similar to that in hemoptysis; has taken some beef-tea; bowels confined; he cannot bear to be moved in bed. Rep. haustus 4tis horis; pil. hyd., gr. v.; ext. colc. c. gr. v., nocti.

9. Has slept well; respiration 22, freer; mucous crepitus heard freely on right side of chest, and some slight bronchial breathing; has spit very little blood; still a great deal of pain in inspiration; pulse 88; bowels not open.

Rep. haustus. et pil. aper.

10. Slept well last night; bowels open; less pain at the chest; resp. 24; spits a little blood occasionally; crepitus still heard; sounds of respiration very feeble.

Rep. haustus. To have a bandage round the chest.

11. Was rather delirious again in the night; complains of thirst; pulse 84; resp. 22; less pain in the chest; expectoration very scanty.

Pergat.; tinc. opii m. xxv. nocte.

12. Has slept comfortably; resp. 22, pulse 80; chest feels much easier; can draw an inspiration

more deeply and easily; some thirst. To have an egg. Omitte haustus.

R. Mist. ammon. citratis,  $\frac{3}{4}$  ss.; vin. antimonii,  $\frac{3}{4}$  ss., 4tis horis.

13. Is much the same; there is a great deal of crepitus and rhonchus audible; resp. 28; pulse 84; was slightly delirious in the night. Pil. opii m. xxi.; nocte. Rep. mist.

14. Has slept well; no further spitting of blood; much less pain in the chest; resp. 26, pulse 80. As the splint has become disarranged from the thigh on account of his restlessness, it was taken off and securely applied again.

17. Has been gradually improving; respiration has been getting easier since last report, and the sounds are more audible over the lung; appetite improving.

18. To omit a'l medicine.

21. Is much improved; feels comfortable; sleeps well; takes a chop and two eggs daily; tongue clean; respiration easy, and sounds more natural.

29. Going on favourably.

Sept. 2. Has greatly improved; attention is only now paid to the fractured legs. The splint was taken off the left leg, and a starch bandage applied.

Sept. 8. Splint was taken off the thigh to-day, and the fracture is found to be firmly united, the upper fragment somewhat overlapping the lower; a starch bandage to be applied.

Sept. 16. Is now able to sit up in bed, but is not yet allowed to use his limbs at all.

Recovering from such a severe accident as this man received, is perhaps rare. Fortunately his fall was broken by the staircase; otherwise, it is probable he would have been killed on the spot. The most interesting feature in the case is the injury to the lung. There can be no doubt, I think, that the sharp ends of the broken ribs had penetrated the lung, but probably not to a great extent, as the small quantity of blood expectorated indicated. Inflammation of the lung afterwards arose, which threatened at one time to be serious; but was speedily subdued by frequent doses of tartar emetic, and a careful use of the lancet as soon as the symptoms called for it. The absence of emphysema is rather curious.

HENRY SMITH, House-Surgeon.

#### SURREY DISPENSARY.

CEREBRAL CONGESTION, WITH EFFUSION INTO THE VENTRICLES OF THE BRAIN.

John Allerby, aged four years and a half, of No. 9, Fishmonger-alley, Borough, admitted under the care of Dr. Aldis, July 4. The child was sitting up in bed; countenance pale; tongue exceedingly foul. It appeared that near Easter he was knocked down and fell upon his head; vomited at the time, and has been ailing ever since. Has been under medical treatment, and the prescriptions consist of bitter tonics. Skin cool; bowels costive; pulse soft.

Cal. c. jalap. gr. ij. statim et alt. mane. Ad tres vices. H. salin. f  $\frac{3}{4}$  ss. ter die.

Vespere. Had a fit, and struggled very much; did not foam at the mouth, but was insensible for half an hour before the fit, and continued so until the following morning. Leeches were applied to the temples, and medicines administered.

6. Visited by Mr. Nettlefold. Always complaining of pain in the head, languidness, and loss of appetite; tongue foul; skin hot and dry; pulse 70, very irregular; pupils large, contracting very slowly; has been very sleepy; bowels relieved twice to-day and twice yesterday: motions yellow and slimy.

R. Hyd. c. creta c. rheo, gr. vj. statim et cras mane.

Rep. H. salin.; emp. canth. nuchæ. Tepid sponging every four hours.

7. Tongue very white, dry; skin hot; pulse 72, very irregular; bowels open; motions figured and yellow; no return of fits; urine free. App. lotio frigida temporibus.

R. H. nitri,  $\frac{3}{4}$  ss. 4tis horis.

R. Hydrarg. chlorid. gr. j. 6tis horis.

R. Ol. ric.  $\frac{3}{4}$  ij. cras et alt. mane.

9. Visited by Mr. Nettlefold. Tongue as last

described; also pulse; motions green; is convulsed when asleep; has slept since 7 A.M., until now, 5 P.M. Perstet.

11. Comatose; pupils dilated; skin hot. Hirud. iv. temporibus.

R. Pulv. colchici, gr. ijss. 4tis horis.

Rep. ol. ric.

14. *Section. Cadav.*—Mr. Marshall opened the head: the vessels of the brain and its membranes were loaded with blood. The superior longitudinal veins contained much blood and a yellow coagulum. Several yellow coagula were also detected in the vessels of the pia mater, which behind the coagula were remarkably turgid with blood. The ventricles contained a large quantity of fluid causing distention of their walls.

#### REVIEWS.

*A Medical Topography of Tunbridge Wells.* By R. H. POWELL, M.D. 12mo., pp. 174. London, 1846.

On a subject so limited as that which a work on local topography embraces it cannot be expected that an author will acquit himself with more than medium credit. To do thus much is to do all that the very nature of the subject will allow, for at the best it is made up only of ordinary incident and detail. The author of the volume before us goes a little out of the boundaries of the title, by treating cursorily certain things which belong only to the practice of physic. In this respect we think Dr. Powell has done himself an injustice, and not added to the value of his work. In so far as this is in accordance with the terms of the title-page, it is a very creditable production, and will no doubt prove acceptable and useful to those who may be desirous of becoming acquainted with the resources of Tunbridge Wells.

#### TO CORRESPONDENTS.

*THE MEDICAL TIMES* is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

Gentlemen whose subscriptions expired with the last number, will oblige by forwarding their remittances without delay.

A Correspondent has called our attention to an omission which nine hundred and ninety-nine out of every thousand of our readers (in common with ourselves) had, probably, not discovered. It appears that the last number of our thirteenth volume, being the number published on the 4th of April, 1845, and which contained the latter part of a very copious index to the volume, by some unaccountable oversight escaped being included in that index. That our volume, when bound, may be as perfect as possible, we have thought it advisable to supply this deficiency on the present opportunity by adding to the index of the fourteenth volume a Supplement, which contains an index of the 340th number, or from page 515 to page 530 (both inclusive) of the thirteenth volume.

H.—A correspondent, Bath, sends with his name the following:—"Value of the Lancet. Retrograde motion. Wishing to see a number of the 'Lancet,' I applied to the chief medical bookseller here; I was then told that they had ceased to order it for some time; they used to sell about thirty numbers a week; now they had not a single subscriber. Thinking I might be more successful elsewhere, I called on the principal booksellers; I



did not meet with one who took it: by them it is considered defunct. 'THE MEDICAL TIMES,' I am happy to say, is favourably known to them." "A Gentleman" who writes so frequently on the misery he is obliged to undergo for his "false position" as a pupil of the University College School, should have sent us his name. As it is, we can only condole with him on semi-authority. He must surely misdescribe his associates.

Our notice of the Introductory Lectures of the different Schools—from the late period of the delivery of the Lectures—cannot appear till our next number.

A Bristol Student should have furnished us with all the circumstances which, according to him, place the Bristol Medical School in so disgraceful an aspect before the well-regulated schools of the Metropolis. Will any of our readers fill up the hiatus?

A Rural Subscriber, who offers a premium to the discoverer meeting a copy of the M—C—Review, should have given his name and address, and inserted his notice as an advertisement.

W. T.'s request shall be attended to.

Dr. Dickson informs us that a paper, lately published by Dr. Ashburner, in a periodical called the "Zoist," exposes views remarkably coincident with those published by Dr. Dickson, in his work entitled "Fallacies of the Faculty."

Amicus.—The viscera named, are affected by a large class of both medical and surgical disorders. We are not aware of any single work including all their special affections.

Mr. Kent's communication is an advertisement.

A Bachelor of Medicine is thanked for his suggestion. It shall receive attention.

The Students of Mr. Dermott's school have sent us a strong protest against the ill-tempered slanders of a contemporary on their Medical Preceptor. They address us in the highest terms on his ability, energy, and unremitting devotion to his duties; and are evidently very gratified by the assistance they derive from him in their professional studies. To publish the protest, which is long, would be as unwise as unnecessary: it would be only giving importance to slanders, and originating in a well known and thoroughly defeated malice.

M. D. writes to us in very strong language, in reference to our London Schools, on what he calls one of the most extraordinary circumstances he can recollect hearing about—the day labourers of the profession beating the Architects and Engineers all to nothing.

We have received more than one remonstrance on the attempts made by a certain party to defame and injure the Westminster Hospital School. If the facts be placed before us in a form in which we can deal with the whole case at once, straightforwardly and safely, we shall feel it our duty to do the peccant parties justice, whoever they may be.

A Member.—We cannot say whether the governing body of the New Institute will send round deputations to all the large towns, but we should fancy they will.

Mr. W. W.—We should pay no attention to the menaces. There is no doubt that the assailant has "a bee in his bonnet."

A Country Practitioner.—We have inquired about the probabilities of the reintroduction of a Registration Bill; and we have good authority for the announcement, that there is not the least probability of Government aiding, or Parliament passing, any bill, from the same source, on Medical Reform.

A Student's statement on the break up of a certain Medical School should have been authenticated. Our own inquiries make us much doubt the accuracy of some of the assertions sent us.

A Member of the Sydenham Society would no doubt have his subscription returned to him by the Committee, if he applied for it.

K. is thanked for his note, which is of no value.

A German Publisher assures us that he has made arrangements for publishing the most complete and magnificent work, "On Surgical Anatomy," ever offered to the public, with large engravings of the first order of merit, by one of the most distinguished of general anatomists. He proposes

concurrently an English edition; and the price will only be three guineas.

F. G. must surely have made some mistake in the hospital report sent to us. We never met with so unfortunate a case—in treatment.

## THE MEDICAL TIMES.

SATURDAY, OCTOBER 3, 1846.

"Ad illam pestem comprimendam, extinguendam, funditus delendam, nata esse videtur."—CICERO.

"Sed confluens forte timet notas  
Decora virgo; tu faciem eripis  
Periclitantem, protegisque  
Delicias juvenum futuras."

SOMETHING more than half a century ago, Jenner conferred an everlasting service upon the world, and an enviable immortality upon his own name, by the discovery of the prophylactic powers of the vaccine virus. As has ever been the case with announcements so comprehensive as this, it was received by one party with doubt, and by another with derision. Fearful was the contention of Jenner with the array of partiality and prejudice that assailed him. There was nothing too spiteful for his adversaries to say, and too revengeful for them to do, against the man who had daring enough to challenge the prejudices of party, and confront its champions with a few simple truths of his own. Innovation, at all times, carries some promise of danger with it, for the simple reason that people become attached to old opinions as they do to old friends, notwithstanding their errors and oddities, and are scrupulously jealous of the source that would threaten an interruption or an end of acquaintance. It was the fate of Jenner to be viewed in the light of a scientific Marplot, who was upsetting all the good old schemes and contrivances, merely to introduce a novelty that assumed to be an improvement. He, however, waged a vigorous and virtuous war with the "opposing hosts" for more than twenty years, when he had the satisfaction of seeing "the allied armies" lay down their weapons of warfare to a man, and tacitly acknowledge him the victor single-handed.

To the mind of Jenner it was enough that his great purpose was finally accomplished—that his announcement of a great truth was, even by his enemies, acknowledged to be a great boon—that the hospitals, and the army and navy of his own country, adopted vaccination, as he had advised, and that foreign countries soon followed their example—that one and all pronounced its panegyric, and hailed its discoverer as a benefactor to the world at large. But the gratitude of the land he lived in was shown to him in terms somewhat more substantial, in the grant, by Parliament, of twenty thousand pounds, as a reward for his genius and its indefatigable exercise. And never was a Parliamentary grant more honourable both to the giver and to the receiver!

Since the days of Jenner the multiplied experience of the profession, at home and abroad, has continued to confirm the truth and efficacy of his great proposition. It is now one of the best attested, and one of the least variable, principles belonging to the art and science of our calling. It is emphatically one which we

can pronounce with a feeling approaching to certainty. And yet, strange to say, there is not a city, town, or village in the United Kingdom, in which there are not plenty of fools "ready and willing" to dispute it. The proof of this is in the terrible mortality from smallpox which we find recorded every quarter on the tabular sheet of the Registrar-General. On consulting these painful evidences of ignorance and prejudice, we rarely find an exception to the fact of the deaths being confined to the unvaccinated. Systematically are these facts laid before the world in terms that are not to be misunderstood, and yet the deluded people refuse to listen to or profit by them.

We have been able to learn, from extensive personal observation on the subject, that the scruples of the people to receive vaccination are not a few, and that most of them have a foundation in perverted facts. It was somewhat unfortunate for Dr. Jenner, and indeed his scheme was near being jeopardied by it, that he attempted to prove the identity of cowpock matter and the fluid from the heel of a horse affected with *grease*. He even went so far as to throw out the supposition, that the matter really originated in the diseased heel of the horse; and that cows, lying where these had lain, contracted the pock by the fluid coming into contact with their teats. A more extended and elaborate inquiry, however, served to convince Dr. Jenner that the identity of the materials could not be established; and that, whatever might be the preservative power of the one, it bore no comparison with the other in efficacy and cleanliness. In so far as these observations related to the profession, they were full of curiosity and interest, and had no danger in them; but not so when exposed to the ignorant prejudices of the world. Society's taste took fright on the instant, and shadowy notions of greasy heels, spavins, string-halt, glanders, and sundry other of the ailments that horseflesh is "heir to," flitted before the mind's eye of the multitude, aghast at the sacrilegious idea of degenerating one's species. Forthwith came a terrible tornado of wrath against Jenner, *et hoc omne genus*, which very nearly decided the fate of his discovery. That prejudice, though quite old enough to have honourably worn itself out, exists yet to some extent. Another proof, if one were wanted, that nothing else which may be said to live, is half so tenacious of its vitality.

Another source of dislike to vaccination arises from the belief, entertained by many people, that cowpox is only smallpox modified. Certain it is, that clothes taken from patients suffering from the smallpox, and laid upon cows, have caused these to become infected with cowpox; and, pathologically speaking, by regarding these affections as varieties of one another, we get at a very ready reason why impregnation with vaccine matter should furnish an exemption from varioloid disease. However this may be, there is a grand difference between the two in their relative mildness, and in the former not being infectious. This part of the subject, like the other, is perfectly comprehensible to the profession; but a considerable portion of the public looks at it, as at every-



thing else, with the unblinking eye of prejudice. It is objected by one party, who have a horror of anticipating nature, and wish all things, like Dogberry's reading and writing, to come by it, that if cowpox be at all related to the disease it is intended to supplant, it is better to have this in a natural way, and then there is no doubt of it. They have a notion that smallpox is *really in one*, as a constituent of constitution; and that the admixture of ailments, like marriages with relatives, may produce an offspring worse than either.

Nearly allied to this class is another stupid set, who fancy that certain of us are fated to have the disease, whatever means may be used to avert it; and that others have an innate exemption from it, when, of course, preventive measures are not needed. They remind us of old Daniel Dancer—whose case is a worthy comment upon them—when asked why he got no medical assistance for his invalid sister, replying, that, "if the old girl's time were come, the nostrums of all the quacks in Christendom could not cure her." *Sic itur ad astra!*

Another source of the disfavour of vaccination is, that it does not invariably guard against the invasion of smallpox. It was an error of its earliest advocates to vaunt it as a prophylactic that could not fail. It was found in a few instances to be unsuccessful, and straightway a lot of belligerents vowed it was good for nothing at all. Ourselves, making allowance for idiosyncrasy, can readily understand why it may be sometimes liable to failure, and yet retain every confidence in it. Not so the public—all their judgment is "yea, yea, and nay, nay." When the metropolitan boards had vaccinated *sixty-seven thousand persons*, only *eight* of that number had been unprotected by the virus! Moreover, it has been proved that fewer people take smallpox after vaccination with *genuine* matter, than suffer from a repetition of varioloid disease. Two, three, and even four times, has smallpox been known to attack the same individual; so that there would appear to be even a greater risk of having a return of it, than of having it at all after vaccination.

For much of this prejudice, however, the profession has to thank itself. It is notorious how careless are some practitioners about the kind of virus they use. Many, we are sorry to say, are quite satisfied if they only raise a pock—no matter what its character, or the kind of material they have produced it with. So gross was this neglect, some time ago, and so apprehensive was the profession that the virus had lost its protective powers, that an elaborate inquiry was instituted concerning it. During this investigation it appeared that in a vast majority of the cases of smallpox after vaccination, there was every reason to doubt the goodness of the matter that had been used. The great sources of error in this respect are—taking the matter too late; or from an unhealthy, incomplete pock; or from a subject constitutionally or temporarily diseased; keeping the matter too long before using it; collecting it upon a dirty receptacle; applying it to a subject suffering from some ailment or other; performing the operation unskilfully; neglecting the child's

health during the time the virus is in operation, &c. These things, seemingly so trifling, yet really so serious, are often disregarded, to the danger of the patient and the discredit of the practitioner. The result is, either a painful evidence that the vaunted remedy proves no source of security whatever; or that some skin affection, or other trouble, follows the vaccination, and is very likely, as the people say, a consequence of it. To these circumstances, perhaps more than to any other, are to be imputed the popular prejudices against one of the deserved boasts of our profession. But, as we have said, we owe all this to ourselves.

Whatever the protective power of the vaccine virus against the invasion of smallpox, it is obvious that it does not extend over a long period of time. It is judged, by the best authorities, that the period of entire protection is limited to seven or eight years, and of partial protection, to about double that period. Here, again, we find another source whence it may be imputed to vaccination to be useless. If an individual be vaccinated only in childhood, it can be no matter of surprise if he be attacked with smallpox when adolescent. Re-vaccination is a matter of the greatest importance. It has occurred to us to meet with many instances demonstrative of its service. We would fain impress this truth as well upon the public as upon the profession; knowing, as we do, what a safeguard it promises to become. It is the duty of the family surgeon to urge his patients to submit to vaccination, at least once in every ten years. We feel assured that if this practice were more general, the cases of smallpox would be much lessened thereby. Sad as is public prejudice on this serious question, it becomes us to diminish or destroy it by every means in our power. We shall recur to this subject in a future article.

#### PETITION AGAINST THE REGISTRATION BILL.

To the Honourable the Commons of Great Britain and Ireland, in Parliament assembled;  
The humble Petition of William Henry Brown, of Belgrave-house, Park-road, Old Kent-road, in the county of Surrey, Doctor in Medicine, Extra-Licentiate of the Royal College of Physicians of London, Fellow of the Linnean Society of London, Consulting Physician to the Incorporated Society of Licensed Victuallers, and formerly Lecturer on Botany and Comparative Anatomy at the Aldersgate College of Medicine, &c.,  
Humbly sheweth,—

That your petitioner having, within the last few days, seen a statement to the effect that it is intended, in the present session of Parliament, to submit a bill for the registration of legally-qualified medical practitioners to your Honourable House, in a medical journal, the editor of which has a seat in your Honourable House, and is therefore not likely to make such a statement unauthenticated, humbly prays your Honourable House, should such a bill be brought under your consideration, that you will refuse it your sanction to pass into a law.

Your petitioner is as fully alive as any one can be to the miserable condition of the laws at present regulating the practice of medicine. No one can more deplore than he does the premium held out by the State to the empiric, whilst it refuses the slightest protection to the qualified practitioner; or the internal degradation to which the profession has to submit at the hands of its self-elected and irresponsible governing bodies. At the same time,

your petitioner conscientiously feels, that should your Honourable House take such a step as that reported, in your anxiety to remove these grievances, you would find eventually that you had proceeded upon a wrong foundation, and that, therefore, the superstructure was not merely inutile but perhaps mischievous; and your petitioner humbly prays your attentive consideration for a brief statement of the reasons which induce him to form this opinion.

Two kinds of institutions regulate the profession generally—one simply conferring an honorary status or degree, the other giving the legal title or diploma to practise. Now, of course, it was originally intended that the first of these should be the introduction to the second; but this has long since been considered a rule more honoured in the breach than in the observance, and the consequence has been that a number of persons have taken upon themselves to practise medicine who have no more legal right to do so than a Master of Arts, simply from the fact of his being so, would have to plead at the bar or to preach in the church.

Your petitioner is far from wishing to depreciate the merits of any collegiate institution, be it English, Irish, or Scotch; but he would submit that the state of things he has mentioned having come about, and there being a notorious disparity between the *amount* of education, also the *time* over which it is made to extend, and the *price* at which it has to be purchased among the respective colleges, and likewise members of mere graduating bodies having arrogated to themselves even superior claims to practise to those of legally-qualified practitioners—which pretensions, further, many who might in some degree be looked upon as authorities have felt it their interest to support,—(in proof of which your petitioner may mention that the editor, of whom he has already made mention, gave place in his journal of the week before last to a letter from a Glasgow Graduate, in which this person spoke with contempt of that grade of the College of Physicians to which your petitioner belongs, affirming that one year's study was all that was required from those composing it, and that the testimonials necessary to be produced by them previous to examination were but a tithe of what were required from candidates for the superior grade; whilst, *in point of fact*, the course of education is required to be equally extensive for both grades, and the testimonials precisely identical. Yet not only was this journal allowed to be the vehicle of this most flagrant and calumnious injustice, but, albeit your petitioner endeavoured to awaken in the editor a sense of the wrong he had committed, he allowed his next number to appear without the slightest correction of his misstatement, or even acknowledgment of your petitioner's communication),—your petitioner would humbly submit, that before your Honourable House shall proceed to the enactment of a law for the registration of legally-qualified medical practitioners, your Honourable House shall appoint a mixed commission to inquire into or call for such returns as shall enable you to judge of the worth of existing degrees and titles, and the right, moral or legal, which they may confer on their holders to practise.

By this means alone your petitioner believes that your Honourable House can arrive at data on which it can legislate in this most important matter with security to the public and benefit to the profession; and he humbly advances that, as there is much to be considered in this matter, should your Honourable House think fit in its wisdom to adopt the suggestion herein made, your Honourable House will have done all that it is expedient to do in the matter during the present session of your Honourable House.

And your petitioner, as in duty bound, will ever pray, &c.,

WILLIAM HENRY BROWN.

QUACKERY—PARIS.—A Dr. Mene, who had acquired a great reputation in the treatment of diseases of the ear, has just been condemned by a Correctional Tribunal to a fine of 300 francs for selling an acoustic oil which was proved to be nothing more than coloured oil of olives.



No. 367. SUMMARY. Oct. 10.

## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY—

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## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

Meeting of Sept. 28; M. DUMERIL in the Chair.

COMPOSITION OF THE GASES CONTAINED IN SEAWATER, BY M. LEWY.—(Reported by Professor Dumas.)—We furnished the readers of the *Medical Times* with an abstract of M. Lewy's communication (see vol. 12, p. 224), in which he endeavoured to show that the quantity of oxygen contained in seawater increased during the day, and that under the influence of night the amount of dissolved carbonic acid was, on the contrary, found to be more considerable. The presence of hydrosulphuric acid in the water of the ocean was also stated by M. Lewy to be a constant fact. The learned reporter had repeated M. Lewy's experiments, and had found them to be perfectly correct. Professor Dumas also agreed with the author in asserting that the quantity of sulphuretted hydrogen was much more considerable in friths of seawater, particularly when they contained muscels, than in the free water of the ocean. Thus, in one litre of pure seawater, one-third centilitre (cubic) of hydrosulphuric acid only was present, whereas, one, two, three, even as much as seven cubic centilitres of the gas might be detected in the liquid when it contained muscels, and was found in friths. This circumstance readily accounted for the distinct sulphurous odour observable on many points of the French coast, on the Channel. M. Lewy thought the gas was combined with ammonia in seawater; an opinion which Professor Dumas could not adopt, because either the hydrosulphate of ammonia was free, or dissolved; if free, it would evaporate; if dissolved, it would, in the presence of carbonic acid, be speedily decomposed. Professor Dumas had proved that sulphuretted hydrogen might be readily converted into sulphuric acid, under peculiar chemical conditions; that fibrin, albumen, and casein cannot exist without the presence of sulphates or sulphuric acid; and it was not uninteresting to remark that the universal natural phenomenon continually in operation in seawater, and discovered by M. Lewy, was, in all probability, one of the principal agents of their production and preservation. The learned reporter concluded by proposing that the Academy grant its approbation to the memoir presented by M. Lewy.

## ACADEMY OF MEDICINE.

Meeting of Sept. 29; M. ROCHE in the Chair.  
THE PLAGUE.

The meeting was entirely taken up by a debate, in which Messrs Prus, Hamont, Castel, Roehoux, and others reproduced the opinions they have already on several occasions laid before the Academy, and which ended in the adoption of the fourth scientific conclusion of the report.

The meeting adjourned at an early hour.

GALVANIC PUNCTURE IN ANEURISM (POPLITEAL ANEURISM).—B., a glazier, a native of Avellino, presented in the left popliteal region an aneurism

equal in size to a goose's egg; the tumour had formed gradually, and had increased in size particularly during the last few months; pulsation was distinct; motion of the joint impaired; the leg swollen, and fever and pain were present. Since the beginning of the year 1846, the patient had been admitted into the Hôpital des Incurables, at Naples, and venesection, cold drinks, cherry-laurel water, digitalis, nitre, and external applications of snow had been tried without benefit, the sufferings becoming daily more and more intense; the pain was in some measure alleviated by the endermic introduction of aëet. morphiae into the system, and B. left the hospital, but was compelled very shortly after to return to the wards. During two months the same treatment was ineffectually employed. At last MM. de Lisio, Semmola, and Derehia agreed to attempt galvano-puncture, and on May 25th the operation was performed in the following manner:—The tourniquet being applied, four steel pins were introduced at right angles into the tumour, and a battery of five plates (twelve inches in surface) was thrown into action, the wires communicating during ten minutes through two of the pins, and during thirteen minutes through the two others; after four minutes the pain became intense, and afterwards gradually subsided. The needles were removed, the pulsation ceased, and snow was kept during forty-eight hours in contact with the tumour. The wounds made by the needles suppurred, and the movements of the knee were improving, when the patient insisted upon leaving the hospital, three weeks after the operation.

DR. CINISELLI'S CASE. (See *Medical Times*, vol. 13, p. 285.)

The case operated upon (popliteal aneurism) by electric agency, at Cremona, by Ciniselli, has been reported in the columns of the *Medical Times*. Since the date of that publication, M. Ciniselli forwarded to the Medical Society of Milan the following details of the progress of the case:—"The operation, it may be recollected, was performed on January 22, 1846; during ten weeks after that period, the swelling was attentively watched, and pulsation and tremor being no longer perceptible, obliteration of the popliteal artery was supposed to have taken place. At the beginning of the month of May, M. Ciniselli found to his great surprise that the circulation of blood had been re-established in the artery, under the aneurism, which was raised *en masse* at each arterial diastole. No expansive pulsations, proper to the tumour, were, however, detected, and it was converted into a hard, solid swelling of the size of a large walnut."—"Gazetta Med. di Milano," June 13, 1846.

The case we have recorded *in extenso*, is the eighth in which the method of galvano-puncture has been used for the treatment of aneurism. A sufficient time has not yet elapsed to permit us to form a positive opinion as to the real value of the new operation, the discovery of which is claimed, we believe erroneously, by Dr. Petrequin, of Lyons. In a paper published in January, 1832, Mr. B. Phillips, F.R.S., adverted to the possibility of ap-

plying electricity to the treatment of aneurism, and, at a date we are not acquainted with, operated on a patient at Westminster Hospital for aneurism of the subclavian; but before any result could be obtained, the patient was persuaded to have ligature performed. Mr. Keate, of St. George's Hospital, also applied the method in a case of disease of the carotid artery, and sanguine hopes were entertained, when the patient died from rupture of the aorta. The right subclavian was tied on the 18th of July, 1838, by Mr. Liston, at University College Hospital, in a case which drew from the professor the following remarks:—"Mr. Liston had seen this case six or eight weeks before, at a period when the patient was about entering into another hospital for the purpose of having the tumour treated by galvanism. The mode in which this was conducted consisted in the passing of large needles through the tumour; to these needles wires were attached which communicated with a galvanic battery. It was said that one case of aneurism had been cured by this mode of treatment, and in this case the tumour had become firmer for a time; soon, however, the application ceased to exert any influence, and the tumour began again to increase in size. The man got tired of the proceeding, and made application to University College Hospital." Neither the first indication of the method nor its first application belong therefore to M. Petrequin, who employed it for the first time, and successfully, on the 4th of August, 1845, in a case of traumatic aneurism of the temporal artery. As to the advantages of the operation over ligature, considerable doubt may be entertained, for two reasons—1. Because gangrene of the skin has been already three times produced by the action of the galvanic fluid; and mortification of the envelopes of an aneurism is, it will be acknowledged, far from desirable. 2. Because in M. Petrequin's case of brachial aneurism, and in two of the cases of popliteal tumour, the arteries do not appear to have been permanently obliterated—a circumstance which must of course warrant a certain degree of anxiety with regard to the solidity of the cure.

## THE SPAS OF THE RHINE.

BY PROFESSOR TROUSSEAU AND DR. LASEGNE.  
(Continued from page 4, vol. 15.)

## THORACIC AFFECTIONS.

The third form of consumption might not inaptly receive the name of latent phthisis, *Phthisis larvata*. In the two preceding varieties the general condition of the patient attracted the attention of the physician; here, on the contrary, he is misled by the appearance of the symptoms. A more striking illustration cannot be brought forward than the frequent confusion between chlorosis and incipient tuberculization. It may be said that auscultation forbids the error. Perhaps it is so; but nevertheless the mistake is very commonly committed, and often difficult to avoid.

A young patient, at the period of her first menstruation, becomes pale and languid; in the even-



ing she is feverish, and the digestive functions are irregular; symptoms of nervous disorder appear; erratic pains show themselves in the chest and extremities; a puffing murmur is distinct in the heart and carotids; who would hesitate in the presence of so well characterized phenomena? Chlorosis is diagnosed, a rapid cure is prognosticated, and ferruginous preparations prescribed; yet the patient does not improve, and the tonic spas of Hombourg or Scwhalbach are advised, with success if the case is one of genuine chlorosis, but if it is latent phthisis, mark the consequences: at first, the ehalybeate waters produce a sort of diffused excitement, and seem to have caused amendment; but soon slight oppression, for which explanations are not wanting, shows itself, and sudden hemoptysis at last leaves no doubt of the increased gravity of the disease. If hemorrhage fails, flushing of the face and evening feverishness demonstrate the sure progress of the tubercles, and the truth of the never-to-be-forgotten axiom, "Martem inimicum esse peccatori." Whenever suspicion of tubercular condensation of the lungs exists, the mineral waters must, therefore, be carefully avoided.

It is not uncommon in practice to meet with young persons who—although not presenting in a very marked degree the signs of chlorosis—are anemic and languid, and offer appearances analogous to those of that deceitful malady. Public opinion marks them as the future victims of consumption, and their physiognomy is that usually represented as belonging to incipient phthisis; they are sometimes affected with nervous disturbances. The waters of Ems having the reputation of curing both nervous diseases and consumption, some physicians send the patients to that watering-place in the hope of relieving present illness, and of preventing future malady. Not only in such cases do we deny the efficacy of alkaline spas, but we cannot sufficiently denounce their exhibition, and above all, their abuse.

Before any spa be recommended, it will be necessary to ascertain by careful investigation which system of organs is more particularly disordered. If the gastric functions be impaired, and the appetite decreased, perhaps saline waters in small doses, assisted by exercise and good food, may be of some service. A continuous purgation should be avoided, and costiveness at the same time guarded against. It will seldom be necessary to send such patients to the spas; and after some few trials, it will not be difficult to moderate the activity of the salt, and to obtain exactly the desired effects. The waters of the Ludwigbrunnen, or of Elizabeth at Hombourg, will then be preferable to those of Kissingen, which retain too large a proportion of carbonic acid. The dose should not exceed two glasses taken in the morning fasting; should constipation occur, it will be sufficient to give the water at a different hour, and to exhibit it some time after a meal. This plan is preferable to an increase of the dose, by which more active results might be produced than are desirable. Baths, with all proper precautions against cold, will form an important item in the treatment; and four or eight litres of the Mutterlange thus employed, when no nervous excitement is present, will be found highly serviceable. In cases in which the thoracic organs seem more particularly affected than the digestive apparatus, when bronchitis is frequent, in consequence of the most trifling exposure, sulphureous waters will be far more useful than muriatic saline spas. Such are the chief indications which, in our opinion, should direct the treatment when it is deemed advisable to advise the Rhenish spas against pulmonary consumption.

If the object of the medication has not been attained, or if medical aid has been sought, for at a more advanced period of phthisis, the question will still too frequently be asked, if mineral waters can still be used with any chances of success? A cure is not, of course, to be expected in a malady against which all the efforts of art are powerless; but is it possible to delay its fatal termination, and to obtain a reprieve, which we are sometimes permitted to hope? When evening fever and nocturnal perspiration have set in, the mineral spas are, to say the least, useless. At Ems we have seen patients submitted, notwithstanding these

unfavourable symptoms, to the usual treatment, and in none did we notice any improvement. The daughter of an illustrious foreign physician, whom we noticed amongst others, had been brought as a last resource to Ems. The perspirations fearfully increased, the debility became extreme, and the treatment was discontinued. Perhaps more satisfactory results might be expected from the very moderate quantity of one tumbler of the water taken every morning in three or four doses, when diarrhoea is incipient. Assisted by carbonic acid, the salt thus exhibited often diminishes the superabundant evacuations, and gives regularity to the appetite. The physicians of the last century have attributed favourable effects to milk mixed in equal proportions with natural Selters water.

Chronic affections of the chest, unaccompanied by any symptoms of tubercles, may be classed among the divisions we have established, because we have founded them less upon stethoscopic signs than upon those derived from the study of the patient's general constitution. Thus bronchial catarrh requires a different treatment according to the various conditions which have in each individual caused it, or which tend to prolong its existence. In general, mineral waters may be exhibited with safety in larger doses than when any suspicion of tubercles is entertained. The uncertainty which still prevails in the generation of tubercular deposits forbids us to expose patients to any sudden transitions of temperature. Prudence in this respect is so important a precept that the consideration of climate deserves to be taken into most serious notice. It appears well demonstrated that any change from hot or cold climates to a more temperate atmosphere is favourable to consumption: thus, if Russians experience benefit at Ems, it is probably to be attributed in a great measure to the relative mildness of its climate. The same observation applies to the inhabitants of tropical countries, who derive advantage from residence in our more temperate latitudes. In this respect, Ems is most favourably situated; enclosed by elevated mountains, it is exempt from sudden atmospheric vicissitudes. At Baden Baden the changes are more appreciable; but Hombourg, protected only, and at some distance, by the Taunus Hills, does not afford the same advantages to its inhabitants; the air is sharp and dry—a circumstance to which hemoptysis at Hombourg is usually referred. These remarks appear to us sufficiently important to induce us to use the Hombourg waters only when exported; and on no occasion to send tubercular patients to reside at that particular spa.

**HYDATID OF THE ORBIT.**—In the *Bulletin Thérapeutique* a case is published by M. Goyrand, of Aix, relative to a lad, aged sixteen, afflicted with exophthalmia on the left side. The eye was immovable, and directed outwards; the distended lids covered the eyeball only imperfectly, and the inverted lashes irritated its surface; the conjunctiva was injected, the cornea opaline, and vision impaired, the disease having already lasted upwards of two years. The size of the eyeball was not increased, but its displacement was clearly due to a tumour occupying the external part of the cavity of the orbit, which gave an obscure sense of fluctuation. On the 10th of June the commissure of the lids was divided, and a transparent fluid gushed from the swelling on puncture being performed. The cyst was opened, and in its cavity a solitary hydatid was found, which, in a state of distention, must have been equal in size to a walnut. Exophthalmia ceased immediately after the operation, and the eye sank deeper in the orbit than that of the right side. The wound was united by three twisted sutures, and cold applications were prescribed. Three weeks after, the patient was quite well, and vision was almost restored. DAN. M'CARTHY, D.M.P.

The secret of rendering animal substances hard as stone is said to depend on their immersion for some time in water holding in solution bichloride of mercury and hydrochlorate of mercury.

## THE SCHOOLS.

### A LECTURE

Delivered at King's College, Thursday, Oct. 1, 1846, at the opening of the Medical Session, 1846-1847.

By WILLIAM A. GUY, M.B.,  
Professor of Forensic Medicine, and Physician to  
King's College Hospital.

GENTLEMEN,—Four years only have elapsed since it fell to my lot to discharge the duty which this day, in virtue of the office I have the honour to hold for the year, again devolves upon me; and thus, a second time, and much earlier than I could reasonably have expected, I have the great pleasure, as the representative of the medical professors, and I trust I may add, of the Rev. the Principal, and the authorities of this college, of offering a hearty welcome to those who are about either to commence or to renew their medical studies within these walls.

The custom of opening the medical session by a general introductory lecture is recommended by many considerations; and where, as in this place, one of the professors is annually appointed, under the title of Dean of the Medical Department, to afford every instruction and assistance in his power, in writing and by personal attendance, to parents and pupils anxious for information, there is an obvious propriety in placing the performance of this duty in his hands.

The duties which devolve upon the Dean of the Medical Department naturally suggest the topics of the present discourse. Those duties bring him into communication, either written or personal, with the parent on the one hand, and the pupil on the other; or with the practitioner who is about to consign to new teachers one who has become scarcely less an object of interest and anxiety to him than if he stood towards him in a nearer and dearer relationship.

It is impossible not to sympathise with those who are about to take, for themselves or others, so important a step as the choice of a place of education, where so interesting a period of life must be spent, knowledge of such surpassing value acquired, and habits of such enduring effect for good or evil formed. It would afford me great satisfaction to be able to remove any anxiety or dispel any doubt which may assail any of the parties to whom I have referred. I shall, therefore, devote the greater part of this lecture to considerations which seem best adapted to this purpose, and shall crave the indulgence of the rest of my audience, if, with this view, I address myself more especially to the junior students.

It is difficult to imagine a position of greater perplexity than that of the young medical student on his first arrival in London. In the short space of a few hours he has been transferred from familiar scenes and faces, to a city of strange places and strange persons; he has (at least in many cases) exchanged the quiet of the country for the noisy confusion of the largest city in the world; the society of home, and the pleasant intercourse with a large circle of acquaintances, for the chilling solitude of a crowd of strangers. With words of warm affection and kind encouragement still sounding in his ears, and looks of anxious sympathy still present to his eye, he encounters at every step the blank expression of indifference. An overwhelming feeling of isolation comes over him, and, for the first time perhaps in his life, he feels himself really alone.

The college is as new to him as the town, and though he derives some little comfort from mingling with those whose occupations are similar to his own, and from among whom he will soon select his friends and companions, the same sense of solitude clings to him and oppresses him. The studies, too, of the next three or four years wear the same strange aspect, and he is perplexed by their variety and alarmed at their extent.

But I would fain believe that such feelings of depression are not unmixed with hope, or unchecked by manly resolution; that a spirit far removed from vain presumption, and chastened by an ever-present sense of duty, will lead him to seek, in an immediate and steady application to his studies, that relief which it is the peculiar privilege of industry to bestow.



The same industry which will form his best and safest resort in the first moments of depression will, I sincerely hope, be his chosen and constant companion through the whole of his career. Without industry, without steady and persevering industry, he can do nothing. The work he has taken in hand is not merely the acquisition of a certain amount of theoretical knowledge; it is not merely a passing contest for distinction; it is not merely a hurried and superficial preparation for the hall, the college, or the university; but it is the preparation for the duties of a life—for the daily work of a difficult, important, and responsible profession. The knowledge to be acquired is not for the purposes of show or the gratification of taste, but for practical application to the prevention and cure of disease, and the alleviation of human suffering.

For this great and good work you are about to prepare by industriously availing yourselves of the opportunities which the liberality and public spirit of the council of this college have provided. They have supplied you with every facility for obtaining theoretical and practical knowledge; you, on your part, have only to turn these facilities and opportunities to account.

It will be my agreeable duty to tell you what these facilities and opportunities are; and, at the same time, to offer some suggestions as to the course of study which you should adopt, the order in which you will have to attend your several lectures, and the claims which they will respectively make upon your attention. I may thus hope to be instrumental in removing some of that perplexity which cannot fail to attend the novel position in which you are placed, and to set you on a vantage ground whence you may survey the wide field opened to the exercise of your industry.

In speaking of the facilities and opportunities provided for the medical student in this college it is very far from my intention to exalt this school at the expense of any other place of medical education. It is not my object to institute comparisons, but simply to put you in possession of information which may be useful to you as strangers in this place.

One of the leading objects of the professors in recommending to the council the appointment of a Dean of the Medical Department was to provide, at all times, but especially on the approach of the winter session, a source of information open to all who might be in doubt or difficulty as to the course which they ought to pursue; and I take this opportunity of stating that during my year of office it will give me personally, as it has done my predecessors, great pleasure to be the means of conveying such information.

The professors had the same object in view in the publication of a hand-book, which is this year superseded by the College Calendar. The student may consult this little volume with advantage, for much useful information relative to the courses of lectures delivered in the college, as well as for the regulations and requirements of the several examining bodies; and I hope that many of our new comers will have the satisfaction of seeing their names mentioned with honour in future editions as prizemen, scholars, and associates.

Another and more important provision has been made for removing the perplexities and smoothing the early difficulties of the junior students in the appointment of a tutor. It will be his duty, and I am sure I may add, his pleasure, to assist them in their studies, to remove their early difficulties, to advise them as to their course of reading, to test the progress they are making, and to give them all the advantage of his own comparatively recent experience as one of the most industrious, intelligent, and successful pupils whom it has been our privilege to educate. In mentioning the name of Dr. George Johnson, I must remind you of the additional claim which he has upon your respect as an original and most successful cultivator of that new field of observation opened out by the microscope; a claim, however, which he shares with others, to whom, in the early part of your career more especially, you will be under great obligations—I mean the demonstrators of anatomy, Messrs. Simon and Bowman.

I must not quit this subject of the tutor without

alluding to the testimony recently borne to the importance of his office by the endowment of a tutorship in one of our provincial schools by a warm friend and liberal benefactor of this college, Dr. Warneford; nor can I deny myself the pleasure of adverting to the gratifying fact, that in this, as in the establishment of the collegiate system, King's College has taken the lead among the medical schools of England.

The library and museum, to which the student will have constant access, and where he will find ample provision for the prosecution of his studies in the intervals of his lectures, may be mentioned among the facilities which have been provided for him.

The lectures themselves will, of course, form the principal means of instruction; and they are constantly assuming additional importance by being more and more largely illustrated by experiments, preparations, models, diagrams, and tables.

The increasing use of these tangible and visible objects is fast converting the unillustrated discourses of former times into demonstrations submitted to the most accurate and faithful of our senses—a change productive of the best effects, and tending to foster that practical spirit which is the glory of this country and the best feature of these times.

But the facilities and opportunities of which I speak with greatest satisfaction are those arrangements for practical teaching which have been lately introduced into our leading schools and hospitals.

The first form which these arrangements took was that of the dissecting-room—the oldest practical school provided for the medical student—a school which has always been regarded, and justly, as of the very first importance, and which it has been the constant care of our able professor of anatomy to maintain in a state of efficiency.

With this view our anatomical staff will, this year, be increased by the appointment of two assistant demonstrators, Messrs. Nunn and Brinton.

It is not a little remarkable that our dissecting-rooms should have been so long holding out an example of practical teaching, and of the immense benefits derived from it, and yet no attempts at imitation should have been made till a very recent period by a science to the full as much in need of practical facilities and appliances as anatomy—I mean chemistry.

At length, however, the necessity is fully felt, and the practical laboratory is becoming as essential a part of a school of medicine as the dissecting-room itself.

In this college it is now of some few years' standing, and the zeal of Dr. Miller has recently added another practical school, where the advanced student of the medical as of other professions may prosecute a continued series of chemical inquiries under the immediate direction of the demonstrator and professor of chemistry, and stimulated to exertion by the prize recently founded in honour of our late distinguished and lamented colleague, Professor Daniell.

Equal care has been taken to render the hospital a place of practical teaching, by the frequent delivery of clinical lectures, by daily observations at the bedside, and by increasing as much as possible the offices, by filling which the student may obtain a practical familiarity with the treatment of disease and the manipulations of surgery. These offices are conferred, after due examination, and without entailing on the student additional expense.

I have thus briefly glanced at some of the facilities which have been placed within the reach of the student; and I now proceed with equal brevity to present him with a scheme of the course of study which he will have to follow, and to offer some suggestions for his guidance during the career upon which he is about to enter. And here I must again apologize to such of my audience as have passed the period of their pupilage, or who, for other reasons, are little interested in the details of medical education. The importance which attaches to the first steps of a new career must plead my excuse, if I seem to spend too much time in an attempt to guide them aright.

I have already alluded to the practical character

which the course of medical instruction is assuming in all the leading schools of medicine, as a subject of congratulation, and a change in harmony with the spirit of our times; and I would urge you to avail yourselves, throughout the whole of your career, of all the practical facilities and opportunities which fall in your way. To a regular attendance on lectures, and a diligent perusal of such authors as may be recommended by the several professors, you should add the practical labours of the dissecting-room, the laboratory, and the wards of the hospital. Lectures and books are but preparations for these personal exercises and experiences, as these again are for the actual practice of your profession.

Before I present you with the promised sketch of the course of study which you will be required to follow, I must remind you of the necessity under which the pupil lies of possessing a competent knowledge of the Latin language. If he should be conscious of any deficiency in this respect, he should lose no time in repairing it, by giving a part of each day to the study of the authors selected by the examining bodies. I would insist upon this daily study of the Latin tongue as greatly to be preferred to an exclusive attention to it, with a view to an approaching examination. By postponing the necessary preparation in this, as in other branches of study, the pupil is led to depart from that regular and steady devotion to the proper labours of the time being, which is, on every ground, so much to be deprecated.

In insisting upon a competent knowledge of the Latin language, I am very far from urging the medical pupil to sacrifice even the least important of his medical studies to the acquirement of a critical knowledge of this or of any other language; and I cannot but regret that the obsolete usages of some of our examining bodies should tend, as they do, to attach undue importance to Latin composition and conversation. To the clergyman a critical and profound knowledge of the ancient languages, especially of the Greek and Hebrew, is of the first importance, as the business of interpretation forms an essential part of his sacred functions; but regulations which tempt and encourage the medical man to devote his time to the speaking of Latin, and the composition of Latin theses and orations, must be looked upon with grave suspicion, as a substitution of the letter of antiquated customs for the spirit which gave them birth.

The only safe test of custom is utility—not utility in the abstract, but utility at the time and in the place at which and in which such custom prevails. The use of Latin in conversation and composition will not bear this test. It is, at the least, a waste of time. Not so, however, with the modern languages, especially French and German. If the student feels that he has any time to devote to the learning of languages, over and above that which is necessary to enable him to read Latin authors with facility, he will have no reason to regret having spent that time in the acquisition of French or German. He will find those languages useful to him in more ways than one; and they will probably be found to yield a return in kind for any expense which they may have entailed. This consideration is not to be overlooked or despised in any comparison which we may institute between the dead and the living languages.

There is another acquirement of a very different kind to which, if the student is conscious of any deficiency, he ought to devote some attention: I mean arithmetic. When he comes to attend lectures on chemistry, he will find that, without a somewhat more extensive knowledge of figures than is generally brought from our public schools, he will often be at a loss. He will be bewildered by equivalents and decimals and proportions, and grow disheartened as he becomes confused. A little attention and application will enable him to supply his deficiency in this respect. He will find, moreover, that the use of figures is not confined to the laboratory, but that it is becoming every day more and more imperative in every branch of knowledge which makes any pretensions to accuracy, and in none more than in that department of medical science which aims at the prevention of disease and the preservation of health.



The efforts which the student may find it necessary to make to supply the deficiencies of his early education should, however, on no account be allowed to interfere with the regular course of his strictly medical studies. These have the first claim upon his attention, and it is not till that claim is satisfied that he can safely turn to other pursuits.

It must, indeed, be confessed that the programme of the studies which the medical pupil is bound by the authorities to pursue is such as, at first sight, to inspire some degree of apprehension. It is the largest and most comprehensive scheme of education in existence; and it has this peculiarity, that the examination (I speak now chiefly of the Hall and College) which is to test the student's competency to practise his profession takes place at one and the same time in all the subjects which have engaged his attention. It is obvious that so large an amount of knowledge is not to be acquired and retained without industry, method, and economy of time; and it is equally obvious that, even if a certain routine were not distinctly prescribed by the examining bodies, it would be absolutely necessary to attend these several courses of lectures in some regular order.

What that order is it will scarcely be necessary that I should point out. It follows naturally from the relation which one subject bears to another. No one can safely undertake a surgical operation without a previous acquaintance with the structure and arrangement of the parts upon which he is about to operate. Hence the study of anatomy must precede that of surgery. So also, before we can safely prescribe a remedy, we must understand both the minute structure and functions of the part affected by disease, and the properties of the substance we propose to employ. The study of the practice of medicine, therefore, must be preceded by that of physiology on the one hand, and of chemistry and botany on the other. Our medical curricula have been formed on this obvious principle. Accordingly, during the first winter session, the student is directed to attend a course of lectures on anatomy, a second on physiology, and a third on chemistry. To these, if he proposes to limit his education to the period of three winter and two summer sessions—the minimum prescribed by one of our examining bodies—he must add a course of lectures on *materia medica* and therapeutics.

But I would strongly urge upon the pupil the importance of extending his term of education to four years at the least. The advantage to be obtained is well worth the sacrifice of time, and he may rest assured that he will have no cause to regret the additional year devoted to his studies. Assuming that he has already determined upon this wise course, he will have, during his first winter session, to attend lectures on anatomy, physiology, and chemistry; and as soon as he has made himself acquainted with the rudiments of osteology he will be prepared for the practical studies of the dissecting-room.

Such is the programme of his studies for the first winter session. During the first summer session he should attend a course of lectures on botany, and a course of practical manipulation in the chemical laboratory.

By following this course he will find himself, at the end of his first year, in possession of a large amount of elementary knowledge. He will have made some progress in all the sciences which constitute the foundation of medical and surgical practice. This foundation he will proceed, in his second winter session, to widen and strengthen by attending a second course of anatomy and physiology, and by a diligent attendance in the dissecting-room. Chemistry and botany, which were studied in the previous winter and summer sessions, will now find their joint application in the course of *materia medica* and therapeutics, and the student may enter with advantage on his attendance in the wards of the hospital.

In the second summer session he may attend a course of lectures on comparative anatomy, and, if he have not already practised pharmacy as an apprentice, he should avail himself of the opportunities of practical instruction offered in the dispensary of the hospital.

With the second winter session the attendance

on anatomy and physiology and the labours of the dissecting-room ought to terminate, and, if due diligence has been shown, there is no doubt that a competent knowledge of both these subjects will have been obtained. The council of the College of Surgeons has, however, thought otherwise, and prescribed a third course of anatomy and physiology. But for this regulation, the third winter session might be devoted exclusively to the lectures on the three practical sciences of medicine, surgery, and midwifery, and the practical pursuits of the hospital; and the third summer session to a course of forensic medicine. The fourth winter session may be spent in attending a second course of medicine and surgery; and this, as well as the remaining summer session, in that diligent attendance at the bedside which is to form the immediate preparation for the responsible duties of the profession.

My object in laying before you this brief outline of the course of study which you will be required, or may be recommended, to follow, is rather to remind you of the vast extent of your studies, than to furnish you with information which may be readily obtained from other sources. I deem it of the very first importance that you should understand thus early the amount of labour which you will be called upon to perform; that you should feel at the very outset that you have no time to lose; that you should resolve to give yourselves forthwith earnestly and steadily, with punctuality and perseverance, to the work you have taken in hand. As I have already stated, it has been the constant aim of the professors and authorities of this college to provide you with every possible facility for the prosecution of your studies, and for the practice of those manipulations which will be so constantly in request when you come to enter on the business of your profession.

To facilities and opportunities the council have been anxious to add encouragements, in the shape of prizes, certificates of honour, and scholarships: the prizes as rewards of merit in individual subjects, and the scholarships as acknowledgments of more general and comprehensive attainments in the subjects treated in the lectures of the year in which they are awarded.

The highest and most valuable distinctions are thus reserved for those who have pursued with most success the course of study prescribed by the examining bodies and recommended by the professors; and the strongest encouragement is held out to the student to make himself master of the whole circle of those sciences, a knowledge of which is justly regarded as essential to the character of the accomplished physician and surgeon.

I must not quit this subject of the scholarships, so recently founded by the liberality of the council, without adverting to the advantage which they are likely to confer on the profession by adding to the often scanty resources of the industrious student, and thus enabling him to obtain for himself a more complete and extended medical education. When we reflect how often, in all professions, the consciousness of limited resources, and the anxious desire to lighten the burden which a professional education imposes on a parent, have given rise to the most strenuous and successful efforts, we may venture to hope that these scholarships, like the more numerous endowments of our ancient universities, may be the means of fostering that opening talent which is destined to shed a lustre on our profession.

It is a source of great satisfaction to the medical professors that the first proposal to found a scholarship in connection with this college emanated from themselves; and that they have thus led the way to that more general system of endowment which has been lately extended to all the departments of the college.

By the establishment of prizes, certificates of honour, and scholarships upon a large and liberal scale, the authorities of the college have furnished a motive to industry which may be expected to address itself with effect to a large number of our pupils. On referring to the calendar recently published, I find that no less than twenty-eight of these distinctions were conferred on nineteen students, at the end of the last winter session; and this number will be increased at the next distribu-

tion by additional prizes and certificates of honour in physiology, surgery, medicine, and midwifery, to which I may add, prizes for proficiency in chemical manipulation, and for the medical and surgical studies of the hospital. I have already mentioned, as of recent establishment, the Daniel Scholarship, founded to give encouragement to the higher order of attainments in practical chemistry.

But though the system of prizes and endowments has a salutary effect in stimulating and sustaining the industry of the student, and though its influence is felt by a large number of our pupils, it would not be safe or desirable to trust to a system of reward and competition as the chief or only engine by which to move the sluggish and fix the wavering. Such a system, from its very nature, must be partial in its operation. The majority of all bodies of young men is inaccessible to the action of these moral stimulants. The diffident, the slow of apprehension, and the infirm of purpose, either keep altogether aloof from competition, or abandon it long before the day of trial. They require to be guided and assisted in the laborious career into which the more ambitious and enterprising are attracted by the prospect of distinction and reward—a prospect which must be regarded, in any case, as a secondary inducement, and which ought not to be allowed to usurp the place of a sense of duty and obligation.

It is this sense of duty, strengthened by a consideration of the responsible nature of the profession which he has embraced, that can alone preserve the medical student, whatever his character or capacity, from the temptations to idleness and negligence which, if he yield to them, will soon be followed by assaults still more difficult to resist, and still more fatal to his present welfare and future prospects.

I am not of the number of those who view with peculiar alarm the student's residence in London. I believe the fears often entertained by parents and guardians to be exaggerated and founded in misapprehension. I think that it would appear, on close investigation, that in the large majority of cases, the vices and disorders attributed to the temptations of the great metropolis are really importations from the country town. The disorderly student is merely the riotous apprentice released altogether from a control which he had long disregarded and set at naught, or a vigilance which he had had too many opportunities of eluding. The incomplete occupation of his time, and the irregular surveillance to which he was necessarily subject, exposed him to temptations far greater than those which await him amid the engrossing occupations of the school and hospital, combined, as they are here, with the regular and punctual observances of the collegiate system. There is this additional advantage, too, attending a residence in London, that it abounds in the means of innocent relaxation, and holds out at least as many harmless attractions as it does dangerous temptations. In the country town, on the other hand, while the temptations are scarcely less numerous, the means of innocent relaxation are reduced to a very small amount.

In instituting this comparison between the dangers and temptations incident to a residence in town and country respectively, I am very far from being influenced by a desire to put forward opinions opposed to the prevalent belief. The issue of the comparison, far from being a matter of idle curiosity, has an important bearing on a leading question connected with medical education: I mean the question whether it is most to the advantage of the medical student himself, and of the profession to which he belongs, that his education should begin with an apprenticeship, and be followed by the usual course of medical study in some metropolitan or provincial school of medicine, or whether the system of apprenticeship, which is gradually falling into disuse, should be altogether abandoned, and the pupil commence his medical studies at the college or hospital.

In expressing an opinion in favour of this last alternative, I would by no means represent the system of apprenticeship as one of unmixed evil, or the opposite system as one of unqualified superiority. Nor would I willingly lose this opportunity of paying a tribute of respect to those medical men who, under a deep sense of the responsibility which at-



horror of quackery: the incompetent will fall, as useless dregs, to the bottom. The profession would not then prove to be so overstocked.

"I might add, as additional points of medical reform, not only uniformity of medical education as in France, but that the certificate system should be either superseded or very much modified; and that the giving of private certificates to favourites competing for professional preferment should be declared empirical and discarded by the profession—this, however, would be a necessary result of public examinations and *concours*. A Board of Health is also another very desirable object.

"I must now offer my congratulations to my colleagues and my class upon the uniform success which has attended the pupils of this school at their examinations; out of *sixty-six* who have gone up for examination before the various medical boards during the last winter and summer sessions, there has not been one rejection.

"May I hope that the present session will prove equally propitious, and that unanimity and regularity will prevail, both on the part of the instructors and the instructed."

"It truly astonishes me, when I reflect upon the vast number of medical men which this school has furnished, during the last twenty-four years, to the army, navy, and civil departments—a period of time, I trust, sufficiently long to guarantee its stability.

"As to the individual success of my pupils in life, many of them have been fortunate enough to be most distinguished. I can reckon, in London alone, at least three or four authorized teachers who received their professional education at this school.

"This establishment has also been the means of benefiting the pupils at large; it was the means of effecting, in the year 1833, an equitable distribution of bodies for dissection.

"This school has also been the means of keeping the entrance fees within due and moderate bounds, if not of reducing them. The most detestable taxes are those upon knowledge, whether in the form of expensive books, lectures, or diplomas; because 'knowledge is power' begotten by a lawful birth, viz.—mental application; it intrinsically belongs to the identity of the individual, and it should, therefore, be properly directed and encouraged, never oppressed.

"Great fees or taxes are heavy weights laid upon the springs of human wisdom and industry, which latter, fostered by toleration and liberty, will be the means of moralizing the world and establishing a basis for a universal true religion.

"Strange to say, that Mr. Wakley, in his last *Lancet*, has made cheap medical education and cheap schools a point of attack, although only a few years ago he used to be the strong advocate for both. Was he the advocate of high-priced knowledge, I would ask, before a factotum of his became hospital teacher, and when his sons attended a private medical school? Did he not then reiterate, again and again, that the private schools ought to be supported because the teachers depended solely upon their own merits.

"As to cheap education, the admission into the profession should depend more upon the acquirement of knowledge than upon pecuniary competency. The late divisions and subdivisions of the various branches of teaching, and consequent multiplication of the fees, have conspired to make it depend on pecuniary qualification. If we are to have an aristocracy in the profession, let it be an aristocracy of talent, not of money and patronage. With the present expenses of medical education John Hunter, unaided by his brother, would have been debarred from entering the profession.

"To return to our subject. There is, moreover, this special advantage connected with this school—our operations are practically and systematically concentrated to a focus, and I am constantly on the spot to regulate, assist, and advise.

"I was once asked whether those who entered to private schools (so called), instead of the hospital ones, did not labour under a disadvantage in after life? I answer, yes, certainly. I will tell you the disadvantage: the teacher in the private school is better acquainted with the condition of each pupil,

he better knows the relative progress that each makes, and can adapt his interrogatories, advice, and personal instruction to the wants and deficiencies of each pupil, whereby, the fair inference is, that his pupils go into practice better qualified. This is the terrible disadvantage that the pupils in the private schools labour under, besides having the benefit of summer instruction and dissection.

"I give no medals, but, instead of that, I shall, in my humble sphere, make as close an approach to the French system as possible, and thereby confer a solid benefit upon the deserving. I regret that the dispensary has been for a time suspended; but in a day or two, I am happy to state that it will be renewed with increased vigour, and within a stone's throw of this place. All the pupils of this school will have gratuitous admission to it; the medical officers being the professors of the school. Twelve pupils will be elected by public competition of talent, by *concours*, to assist the professors in attending upon the patients of this institution, who will collectively constitute the '*class of honours*,' and will receive a '*certificate of honours*' attesting the mode and object of the election.

"All the pupils of the Charlotte-street School of Medicine will be allowed to compete, with this reservation:—that either of the lecturers shall have the power of excluding any student upon the score of impropriety of conduct or immorality.

"The honourable distinctions of this certificate will, of course prove a strong recommendation to its possessor in after life. In case of a vacancy there will be a fresh election for filling the same.

"I would wish, in the next place, to introduce to your notice something that will not form an integral portion of the arrangements of the school, but which will prove worthy of the future consideration of the pupils present, as well as those of all other schools. It is often the case with a deserving young medical man that he fails of success altogether for the want of a little pecuniary assistance at the onset of medical life. How often is it, also, that a young man is thrown out of a situation from accident or disease; and how often is it the case that the studies of a pupil are arrested in consequence of the death of a relative, and that he is left penniless and resourceless?

"My object would be to prevent this, by proposing the formation of a society, which could perhaps be called the MEDICAL ASSISTANTS AND PUPILS' RELIEF SOCIETY, or some such a name, the object of which society should be to relieve distressed medical assistants and students, whose pecuniary embarrassments are not incurred as the result of impropriety of conduct. I merely throw this out as a suggestion, having had more experience and closer acquaintanceship with pupils than any other teacher in England. It should not be connected with any school or any particular party. I have no doubt that all the pupils will unite to accomplish so great and worthy an object, and that considerable aid will be obtained, in form of subscriptions, from medical practitioners.

"Next, I am in duty bound to make some observations upon the hours of lecture, and the general arrangements of this school; to which circumstances compel me to claim your special attention.

"From 9 to 10, Mondays, Wednesdays, and Fridays; *materia medica*.

"From 9 to 10, Tuesdays, Thursdays, and Saturdays; chemistry.

"From 10 to 11 daily, excepting Saturdays; anatomical demonstrations.

"From half-past 2 to half-past 3, Mondays, Wednesdays, and Fridays; principles of medicine.

"From half-past 3 to half-past 4 daily; anatomy and physiology.

"From half-past 4 to half-past 5, Tuesdays, Thursdays, and Saturdays; midwifery.

"From 7 to 8 in the evening, Mondays, Wednesdays, and Fridays; surgery.

"The student will thus have from eleven in the morning to half-past three in the afternoon to attend to hospital and dispensary practice on Tuesdays, Thursdays, and Saturdays; and from eleven a.m. to half-past two p.m., Mondays, Wednesdays, and Fridays:—a longer time than is allowed for those duties in most hospital schools; and, besides,

should the pupils find that Dr. Aldis's hour for the principles of medicine is too early in the afternoon for their convenience, he will, I am sure, readily alter it according to the maxim which I have invariably followed for the last twenty-four years, that the hours of lecture, to suit the necessities of all, must be always determined by the universal voice of the class, and that, if a single pupil is hindered from attending in consequence of any alteration, the act of injustice is as gross as though a dozen were thereby deprived of their instruction.

"Notwithstanding these facts, it was stated some time since in the '*Lancet*,' and reiterated again on the 12th ultimo:—'We do not recommend Dermott's school. In every instance, if it be possible, they should select for attendance a hospital which has in close connection with it a school which contains teachers that are well known for their abilities and industry, and the faithful discharge of their duties. The scene for the day's labour and study, should, if possible, be found under one roof, or, certainly, in contiguous buildings.' Now, I want no vague innuendos, or anonymous communications, but if he has any strong reason for advising students not to enter, it behoves him to stick to facts, and to state his reasons. This journal is public property (such as it is), and both the public and myself have a right to insist upon it. I challenge him to do it. As to the nonsense, that the hospital and all the lectures should be under one roof, he may just as well say that a five minutes' walk between the hours of lecture and hospital attendance would be of immense injury to the health and intellect; or, whilst he was about it, he should have recommended the pupils to sleep, eat, attend hospital and lectures, under the same roof, as highly corroborative both to mind and body.

I have heretofore canvassed Mr. Wakley's conduct as a medical reformer—and had a right to do it—because, as an old medical reformer, I had a considerable interest at stake upon it, and it was my duty on these grounds to chastise him for his delinquencies. It is, moreover, an acknowledged right and duty, as an integral part of civilized society, to express your opinion upon the public conduct of those who obtrude themselves upon society as public characters—about our self-appointed servants who pretend to do our work for us. Is it for him, therefore—because I have in former times deliberately given my reasons for disapproving of him as a public servant to the profession—to say with a breast swelling with malignity and with malice, as great as the actions were puny and contemptible, 'I will not allow any advertisement from, or relating, to that man to appear in my journal—I will crush that man'? Is this an Aristides? or does it partake of the spirit (but without the ability) of a Gesler? Is this man fit to be a lawgiver? The very course which gave him notoriety at the outset of his career, in consequence of its novelty and scurrility, is proving his shipwreck. I am happy to say that the profession is losing its taste for low vituperation—it is grown thoroughly stale; and I hope I shall live to see the day when none of the profession will any longer allow any journal which is a vehicle of the same to pollute their family hearths and circles.

"To quote the words of the '*Lancet*,' applying them to the editor, instead of to the National Association, which he has lately so calumniated and misrepresented, I would say, 'We are willing to allow the waters of oblivion to flow over all that has transpired, except as it regards such acts as ought to weigh with us, as reasonable beings, in guarding against future misconduct—against other degradations.'

"So much, then, for the arrangements of this school v. Mr. Wakley.

"You must recollect, gentlemen, that if you cannot work for affluence, you must work for a living; that irregularities and dissipation will produce disappointment, cause exposure of your ignorance, vexation, penury, disease, misery, and probably, as an ultimate asylum, a premature grave. I advise you to arrange your readings at night into two grand divisions. First, what you have heard and seen in your lectures, demonstrations, and dissections during the day; secondly, what you expect



to see and hear as topics of instruction during the ensuing day. Don't recline your head on your pillow without doing this, or your work will dreadfully accumulate, and you will get notoriously behind your fellow-students.

"I would never advise you to take a book into the dissecting-room—the latter is the place for dissection, not for reading. If you do, it is a confession that you have neglected your duties in the closet the preceding evening. It is like a general taking a book on military tactics into the field to study during the action.

"As a strong incentive to study, you must recollect that there are various markets now opening for the sale of talent, to which you will be able to gain access at little cost either of time or money. By the instrumentality of steam and the influence of free trade, a spirit of fraternity is becoming established between nations, the most distant countries are approximated and almost brought into juxtaposition. All nations are being fused into each other as one common community, and a new world is bursting upon us. Knowledge is uniformly spreading, the billows of discord between nations are subsiding in the swelling tide of public opinion and intelligence, which, in defiance of the dictates of kings and the edicts of the oppressor, is overwhelming all obstacles, and rapidly and literally fulfilling the sacred prophecy, that all people shall be as one nation, and that knowledge shall cover the face of the earth as the waters do the great deep.

"Yes, gentlemen, such is the spread of knowledge, that, before your medical career terminates, talent will gain the ascendancy over vice, even in patronage-ridden England, and Merit, shaking from its eagle pinions the cramping and paralysing frost of oppression and monopoly, with wide-spread wings, will soar aloft in its own majesty, into the blissful and serene regions of pure and unalloyed science.

"Finally, gentlemen, let me observe, be sedulous and persevering in the cause of science, and you will be as gloriously successful in obtaining knowledge. Industry, it is true, does not ensure to you honours and emolument; but it will ensure you a happy conscience, a sense of proud independence within your breast connected with the conviction of your deserts. This is much more desirable than the spurious fame of the monopolist. But, on the other hand, recollect that if you are idle, though you should even obtain your diploma, the seal of confirmation upon it will be the seal of blood, and you will go forth, not as blessings to society, but as murderers. Let us strenuously persevere, then, knowing that no greater thing can be said of man than this, 'He served his God and his generation, and he died.' Let us hope, at the same time, that we may yet live to see the day when monopoly and self-election and private influence in all our institutions shall be abolished—when talent shall reign triumphant—when that tyrant Ignorance shall retire for ever into the shades of oblivion, and when all the medical profession, possessing equal rights and privileges, shall be as one grand harmonious brotherhood, labouring in the cause of science, not only for individual distinction but for the good of all, under the triune meridian sun of truth, liberty, and justice—the medical millennium. God grant it!"

#### WESTMINSTER HOSPITAL SCHOOL.

On Saturday last, the school attached to this hospital was opened for the session, Mr. Erichsen delivering the introductory address to a large audience, comprising many of the most influential of the governors of the hospital, of the clergy, and medical practitioners of the district.

After adverting to the usefulness of the medical student properly filling up the period of his studies, by which his future success of life and position in society will in a great measure be determined, and urging upon the student to preserve the zeal and activity that have animated him, undiminished during his future life, the lecturer proceeded to point out the causes that had led and were leading individuals to eminence, in this and the other learned professions. He pointed

out that, although the gifts of genius might be denied to many, still that we had all faculties of the mind which might, by constant cultivation and care, be so improved as to supply the place of genius; that, if any one would act with a strong and earnest determination to become eminent in his profession, he would, if he pursued his determination with untiring energy and perseverance, and kept the end he had in view steadily in mind, infallibly succeed, provided he had that physical strength allotted him that would enable him to carry out his resolve; that there could be no doubt that original difference existed in intellectual as well as in physical power, but that in by far the majority of cases, by care, labour, and vigilant attention, great success might be obtained; that the mental powers were capable of progressive and almost indefinite improvement; and that, as the bodily strength might be increased by proper care, so might the faculties of the mind be invigorated and be adapted to the highest purposes by early, constant, and careful cultivation; and we find, on examining the discipline by which the mind of any man of eminence has been trained, that it is only by this constant and unremitting vigilance, perseverance, and care that success has been obtained, and not by trusting to the unsteady inspirations of what is called genius.

The student should likewise learn to estimate the value of time: much of his success will depend upon economy in this important respect, and on punctuality in all the relations of life. Every man is accountable for his time, but none more so than the medical student; for, though the period allotted to study may at the commencement seem long, it will pass away quickly and cannot return; and it will depend in a great measure on the way in which this has been filled up, whether he will be able to acquit himself properly when called upon in cases of great emergency, when on the state of his previous preparation it will often depend whether the result will be life or death, and whether, consequently, he will be able to practise his profession with credit to himself, and benefit—or even safety—to the community at large.

After further cautioning the student against allowing himself to be involved in the bondage of bad habits, or indulging in low and debasing pursuits, Mr. Erichsen proceeded to give a rapid sketch of the nature and objects of the various studies that would occupy his time; he dwelt especially on the influence of a sound and practical acquaintance with the details of chemistry and anatomy—the foundations on which medical science rested. He urged the student to an intimate acquaintance with the details as well as with the principles of chemistry, not merely on account of its intrinsic interest, or the satisfaction that is derived from the beauty of its experiments or the certainty of its evidence, or, indeed, on account of its close and intimate relation even to pharmacy, to medical jurisprudence, or to physiology, but rather on account of the close connection that has of late years been established between chemistry and pathology and clinical medicine. The impulse that organic chemistry has received within the last few years from the labours of a host of philosophers, having tended in a remarkable manner to give us a more profound insight into the essence of the vital processes, has cleared up the relations of the different articles of food to the purposes they bear in the economy, and has thrown the greatest light upon the causes, and has enabled us to direct with much greater certainty and effect the treatment, of many important diseases, especially those of the urinary and digestive organs. Hence a sound acquaintance with its principles, and a practical knowledge of its manipulatory details, can no longer be looked upon as mere ornamental accessories of the medical curriculum—the accomplishment, as it were, of the physician—but must be regarded as essential requisites to the education of every man who would practise his profession with credit and success.

The lecturer next proceeded to point out in very forcible language the necessity that there existed for every medical man to be thoroughly grounded in the study of anatomy and physiology, not only on account of the important relations that subsist

between these sciences and practical surgery, but with pathology and every department of the healing art. After pointing out the important services that experimental physiology had rendered to practical surgery, as evidenced by the labours of John Hunter and Sir C. Bell, and on the necessity that there exists, in order to make physiology available to practice, not to study the functions of organs separately, but to pay especial attention to them as part of a whole, associated and linked together by connection and sympathy, and thus to judge properly of their reciprocal influence in disease.

The next subject dwelt upon was the importance of an acquaintance with classical literature; and Mr. Erichsen showed the false liberality and the affectation of practical wisdom of those who attempt to depreciate languages; an acquaintance with which entails a knowledge of the characters of some of the greatest men that ever lived, and of the noblest sentiments that the human mind ever conceived. An acquaintance with these languages likewise leads to a more correct understanding of our own, and to greater order and precision of ideas. He likewise dwelt upon the advantage that attends an acquaintance with one or more of the more generally-used European languages, and directed especial attention to the necessity of every member of a learned profession being able to speak and write his own language correctly, as otherwise he would be the means of bringing contempt and ridicule on his own body, and, however great his professional skill might be, would suffer from the slenderness of his general acquirements.

After pointing out the necessity of attending closely to clinical instruction, and to whatever would tend to make him accomplished in the practice of his profession, Mr. Erichsen warned the student against ever turning his profession to unworthy purposes for the mere sake of gain, and cautioned him strenuously against indulging in scepticism or doubt as to the powers of his art, and of falling into voluntary or involuntary quackery. He pointed out the great power that medicine already possesses in curing with certainty many diseases, especially of an acute character, and of checking or materially relieving others of a more chronic nature; and he expressed his conviction, and stated at length his reasons for firmly believing, that the principles on which medicine is founded are as exact as those that regulate other sciences.

Mr. Erichsen concluded a very eloquent address by urging the students not to interfere during the progress of their studies in those changes in medical politics by which the profession is at present being agitated, and, when the period arrived at which they might possess sufficient time and experience to enter upon the discussion of such subjects, to be guided by no feeling but a desire to benefit and protect the whole body of the profession, and above all things to be careful, before engaging themselves in any cause, to *inquire into the characters* of those with whom they were about to associate themselves; he said that the time was past when men without character and principle were tolerated either by the profession or by society at large; and that, if they allowed themselves to sacrifice their honour or probity to selfish or unworthy ends, they would inevitably, whatever their abilities and attainments might be, become lost and ruined men—shunned by those with whom their daily duties brought them into contact. He felt how much the students had a right to claim of their preceptors, and he assured them that he and his colleagues were ready to use every exertion, and to spare no labour by which their instruction could be forwarded, and thus to rebut those vile and malignant calumnies by which, from motives that were but too transparent and too well known to all about the school, they had within the walls of the hospital, as well as out of that institution, been most unjustly assailed.

A letter from Chambéry announces that the inauguration of the bronze statue of Fodéré took place at St. Jean de Maurienne on the 18th of August. This statue was executed in Paris, and represents the illustrious and far-famed professor of the faculty of medicine of Strasbourg, in his university robes, with his left hand resting on a work bearing the title "Forensic Medicine."



## UNIVERSITY COLLEGE.

The introductory address at this school was delivered by Dr. MURPHY, the Professor of Midwifery.

The lecturer commenced with a brief outline of the studies connected with medicine—botany, chemistry, anatomy, physiology, pathology; and the observation of disease proving the scientific character of medicine as a study, and its ennobling tendency as a pursuit, from which the inference was drawn, that among the scientific professions, medicine should hold an equal rank with the highest. Some of the causes of its depression—those most easily corrected—were assigned, viz., a deficient education, both general and professional. The means of correcting the former rests with those who have the control of medical education. A competent general education should be rendered imperative on the student seeking admission to the course of studies necessary to the medical profession. The high value placed on a liberal education in other professions (as the Church and the Bar) was pointed out.

The correction of a deficient professional education rests with the student himself, who has every means at his hand to facilitate his progress. To assist him in this object some errors were pointed out for his avoidance. A mistaken idea of the object of his medical education, viz., that of merely passing his examination; the abuse to which this mistake has led in the mode of preparing for examinations. The necessity of studying the profession for its own sake was insisted upon; a sound knowledge of his profession being a much better security to the student for success in after life than a license to practise.

Abstract study—the habit of withdrawing his attention from surrounding objects, and seeking to gather from books the knowledge which only should be derived from observation—should be avoided; the value of clinical study pointed out.

Theorizing on a few facts a very common error; its evil effects on medicine, in giving rise to overheated and useless controversies, were alluded to.

Assumption of facts should also be guarded against. Illustrations of this error derived from morbid anatomy. The necessity for caution, especially with the microscope, which in unaccustomed hands produces numerous false facts.

A very brief allusion was then made to surgery and to midwifery, as branches of medicine. In surgery the importance of a high cultivation of the sentient faculties was pointed out; not only must the eye be acute, but the hand adroit; and, for this purpose, the habit of dissection is essential. The orator then alluded to midwifery, which, he said, is a branch of medicine too much neglected. He commented on the belief that, because midwifery is easily practised, it needs little attention, and pointed out the fatal consequences of neglecting its study.

Dr. Murphy concluded an eloquent address by exhorting the students to study their profession with perseverance and zeal, and alluded to the rewards which such a course would bring with it, in contradistinction to the after-remorse entailed on the unwary, who allows himself to be seduced by idleness and dissipation.

## CHARLOTTE-STREET SCHOOL OF MEDICINE.

## INTRODUCTORY LECTURE, BY MR. DERMOTT.

The lecturer, after congratulating his pupils upon meeting them again, alluded to the rapid strides that structural anatomy and organic chemistry have made of late years, and pointed out the necessity for all medical men to advance with the times in these two branches of medical science.

He observed that not many years since the real nature of membranes, mucous, serous, and synovial, the intimate structure of the elementary muscular and nervous fibre, were not known; the structure of glands was scarcely more than guessed at; transcendental anatomy was scarcely taught or studied, and the subject of organic chemistry rarely broached in the anatomical lectures. He then expatiated upon the state of the medical profession as follows:—

"I shall now say a few words upon the medical profession as it is, and as it ought to be. It is my duty, if you come to my market, to sell you a good commodity in the form of genuine instruction; but I shall also make it a point of propriety this day to tell you what use you can make of your knowledge, in the present state of the profession, when you have acquired it; what use you cannot make of it, and what use you ought to be able to make of it, and would be able, if the unjust obstacles attributable to the non-existence of wholesome medical legislation were thoroughly removed.

"There are this day a great many very splendid falsehoods told, by very fine persons bedecked with black gowns, and in very fine places furnished with corridors, flights of steps, and so forth, that dazzle and bamboozle the uninitiated pupil. They will tell you, perhaps, what Hunter did, the immortal eminence he attained, and that emolument and fame lie before you ready for your grasp. But these are untruths, gentlemen, and most cruel untruths, because they are calculated to deceive you; and those who are the promulgators of them are fully aware that ere long sad experience will prove to you that what I am about to tell you is but too true. I do not want to discourage you, but we must know the malignant evils which corrupt medical society in order to get rid of them, and you should not be deceived by delusive prospects. These 'professors,' gentlemen, in their introductory lectures, point to a fallacious meteor—they tell you of the bright sunshine of public approbation; but when you arrive at the summit of the eminence you find a deep and dark gulf of monopoly separating you from the object for which you first started—the reward of public favour and reasonable pecuniary emolument. Great fees, golden tolls, family patronage, are the passports over this gulf of corruption, as though talent, family interest, morality, and money were generally or even necessarily combined in the same individual.

"We have the temple of Æsculapius choked up by hereditarily privileged men—our Drs. Plausible and Feasible—and the avenues leading to the same by their *protégés*. We have the golden bar of exclusiveness put up between the mass of pupils at large and the favoured few. The industrious pupils, after spending their money and time in London, return from the metropolis in shoals with empty pockets, heartless, and prospectless, and are in mockery told that the profession is overstocked. Some, having no solid reward in sight as a stimulus to study (such as society is in moral duty bound to hold out), sink into idleness and dissipation; whilst the least meritorious, the most monied and family-patronised, pass through the wicket and over the suspension-bridge of monopoly.

"This is absolutely the state of the medical profession. We have dresserships, house-surgeoncies, appointments in the army and navy, lectureships, physicianships and surgeoncies to public institutions, and in fact to all medical offices of public trust (as well as the lucrative practices connected with such ill-gotten distinctions), obtained by purchase, private patronage, and chicanery. Personal solicitations, begging or canvassing from door to door, sycophantish placards and advertisements, are had recourse to—a system which degrades the medical man below the most paltry shopkeeper whose favour he solicits—is a blasphemy and insult to the very name of science, and reduces the whole of the profession to a placarding, favour-begging, and advertising body of the lowest and most servile stamp. As results of this system we have the dastardly board-room brawls and intrigue of party and private interest, whence spring the horrid jealousies, narrow-minded feelings, and bad actions which dishonour the medical profession, and which proved the deathblow even of John Hunter.

"There is, in our present system, encouragement to vice, and discouragement to morality; there is preferment without talent, not preferment as the result of it. Our universities and hospitals are so many 'rotten boroughs,' where a system of favouritism and private interest is fostered; and thus are science and human life, in this country, made the victims of private interest and party cabal.

"We have the non-medical governors of our institutions called upon to do what it is impossible they

can do, viz., to judge of the comparative medical merits of candidates. Thus the vast majority are deceived by mere 'hearsay,' which at best is a most treacherous informant, and thus are the governors made the mere tools of the medical officers already in power.

"Let us examine, without prejudice, how they manage these things in France.

"In France, *concours* for the election of professors and members of the examining boards are conducted in the following manner:—The dean of the faculty summons a meeting of the professors, and a committee is selected from amongst them by lot; these—about a dozen individuals, sometimes less—act as a jury, and they are all sworn to perform their duty with impartiality. Notice of the forthcoming trial of intellectual strength is given in the public prints—and even placarded in the streets—and the public are indiscriminately admitted to the Great Amphitheatre of the Faculty of Medicine, whilst the candidates are reserved in another room. The *concours* opens by each member of the jury placing in an urn a slip of paper with some topic named upon it.

"Each candidate—the eldest first—draws his lot, and is to deliver a lecture, without referring to books, and with a quarter of an hour's meditation upon the subject thus drawn. The concurrents are next required to write theses; and while each, on the appointed day, reads his thesis, his views are open to the disputation of his fellow-competitors, and, as he is examined by them on all topics connected with it, it is of course their interest to expose every deficiency in their rival candidates. These wranglings sometimes last several days.

"*Concours* for the election of physicians and surgeons to hospitals, &c., are of a somewhat more practical character, varying according to the species of ability required for the duties of the office. Cases are produced upon which the candidates are publicly to make their diagnoses and comments, and for which they have to prescribe; they have also publicly to perform and describe the various surgical operations. The plan of *concours* necessarily excludes all men from public appointments who do not possess fit and even superior attainments.

"Let us refer to the evidence of Mr. King, given before the Parliamentary Committee of Inquiry into Medical Education in the year 1834. He stated that during his professional career in Paris he obtained many professional honorary appointments. He obtained the distinction of being a member of the Ecole Pratique, at the first *concours*, on the first attempt.

"He next obtained, by a similar *concours*, an appointment as dresser at the public hospitals; and after that he competed for the prizes which are given every year, after public *concours*, to the members of the Ecole Pratique.

"At the end of his first year's study as one of those members, had a vacancy occurred, he had a right to compete for the office of *aide d'anatomie*; and had he obtained such an office he would then have had the right to compete for the office of prosecutor to the faculty; but, as no such a vacancy occurred, the next year he competed for the *interne*, which is somewhat similar to the office of house-surgeon in our hospitals, and, on the second *concours*, he obtained the nomination of provisional *interne*. In the following year, on the third *concours* in the hospitals, he was elected the second of the *internes* at the Hôtel Dieu. At the time Mr. King was elected he had the good fortune to be unanimously chosen; and his name being most conspicuously an English one, and the trial public, the question arose, and was afterwards considered in the council of the hospital administration, whether or not, being a foreigner, he was eligible.

"After some deliberation it was decided that foreigners should be admitted to the *concours*, and that they were eligible; and the expressions used by the reporter on that occasion were, 'That the council being influenced by motives of a high national order, had, in their wisdom, declared, that France was the country of all the talents that would honour and serve her.'

"At the end of each year Mr. King obtained a prize; and during his service at the hospitals he



obtained by *concours* the gold medal, which is given for the best register of cases and the best reports thereon. At this *concours* all the *internes* of the different hospitals compete.

"Mr. King further stated, that the men who distinguished themselves at *concours* are those on whom the eye of Government is constantly fixed for the conferment of public honours and trusts; those, for instance, who have thus acquired distinction have the greater chance of being elected as members of the Académie de Médecine. The board, also, for the superintendence of hospitals, nominated by Government, consists principally of the peers of France and distinguished men who are eminent in the sciences.

"Mr. King afterwards unfortunately came to England. 'I was then not admitted,' says he, 'for examination at the College of Surgeons until after making several applications. There was considerable delay and deliberation.'

"He became a candidate for the assistant-surgery to St. George's Hospital; but the result was, that he was given to understand by one of the full surgeons of the institution, that no man had any chance of becoming hospital surgeon, unless he had been an apprentice or pupil to the hospital.

"Thus a man may be reduced to beggary in England by pursuing the same course which infallibly leads to the highest distinctions in France—for preferment medical men will *not* get in England without patronage. Those who follow medical science in England for a livelihood are obliged to live 'from hand to mouth,' and have no time nor encouragement to pursue research; beggary and starvation would be the consequence if they did. Poor King, in leaving a foreign land to exercise his talents in his own country, fell from prosperity, lost sight of all his ambitious views and bright prospects of future advancement, and died the victim of despair. He was a man murdered by his country.

"There is one, and only one way open, one opportunity providentially forcing itself upon our notice, which is the only means of salvation available to the profession—which will prove (if we all do our duty) a sure and certain remedy for all our evils, and will place the profession in its proper and elevated position. I allude to the *National Medical Association and its projected INSTITUTE*. This is the only chance we have now left to relieve ourselves of the thralldom and tyranny of monopoly.

"There are two grand points, however, which must most religiously be attended to. First, the profession must do its duty to the council; and secondly, the council of the Association and Institute must do their duty towards the profession.

"The National Association are already choosing their council by ballot—a pretty good guarantee that things will be managed fairly, and that they intend to keep themselves as a body openly responsible to the profession; and this representative and responsible system, let reform come when it may, must constitute its radix and trunk.

"The council of the new Institute, properly chosen, must constitute the trunk of medical reform, whilst the profession at large will be as the nourishing soil; all other changes for the better will grow out of this, as so many *rami* and *ramusculi* bearing fruit to the glory of medical science. Nothing but universal suffrage in the profession can ensure to it properly-qualified teachers and public officers, a proper demand for merit, and laws for the universal good of the community.

"The National Institute of Medicine is a great institution in embryo, which will in the course of a short time, if properly managed, have a *creative power of strength within itself*, and work out the greatest practical results.

"Brethren, if you do your duty, you will not only establish a leading corporation—a *great National Medical Institute* upon a liberal basis—but all the other corporations will be obliged to adopt the same principles of action, and follow in honourable rivalry. The profession can thus reform the corporations, if they choose, and establish a representative government in each, by having recourse to exertion, and perseverance. This Institute will not merely end in a medical pseudo-reform bill—in other words, a registration and taxa-

tion scheme, such as that with which the profession is now impudently threatened.

"I implore you, then, my professional brethren, not to allow this truly important crisis to pass by. If you do—if you do not render the cause of medical reform a little of your time and a little of your exertion—the result will be increased professional degradation and insult, continued oppression of merit and professional preferment of the undeserving, empirical sacrifice of human life and the farcical Registration Act—with taxation for the support of useless sinecure berths to be occupied by those who have, with such effrontery, gulled the profession about reform. The monopolists are ever watchful to take advantage of an opportunity, and are at once silent, prompt, and wily in action. But we have still the ball at our feet—if we perform our duty,—if the medical profession will act for itself—if the National Medical Association is supported by the main body of the profession stepping forward to identify themselves with it,—medical reform, the advancement of science, the moral interests of the profession, and the welfare of suffering humanity will be secured.

"Is it not more than monstrous that in this country, in the year 1846, the immense body of the profession, consisting of nearly 13,000 intelligent, well-educated individuals, should be considered and treated by the Legislature as a horde of barbarians, and that as such they should be denied a voice in their own government? The unjust and retrospective tendency of the charter granted by the late Cabinet, and Sir Jas. Graham's Bill with which we were threatened, are only the harbingers of worse things yet to come, unless the profession as a body *act*, and *do the thing for themselves*.

"Let us be up and doing—let us not criminally withhold that support which we ought to give; we have a duty to perform towards society and towards our brethren; there are sins of omission as well as of commission: by withholding support at this most eventful juncture we become guilty of negative opposition, and give our enemies the advantage and the victory.

"Unfortunately the medical profession has been hitherto led astray by persons who possess a facility of talking, but not acting—great boasters, but little doers. Medical men have hitherto rested upon broken reeds, instead of doing their own work. The inactivity, deceit, and treachery of those who have been placed by the profession in positions for action as the reward of their domineering and boasting, have given the monopolists an opportunity of obtaining their charters and maturing their plans. The measures that we have been PROMISED, by those who have artfully deceived the profession for their own advantage, will be CARRIED by the Institute, if we assist them properly—silently, unostentatiously, but efficiently carried.

"The bills *talked about* in the British Medical Association and the Medical Protection Society,—Mr. Wakley's one Faculty Bill (still in foetal condition, after eleven years' *utero-gestation*), Mr. Warburton's bills, and, last of all, Sir James Graham's, are all proofs that the political partymen and jobbers are a positive injury to the cause, and that the profession, in a body, must manage their own affairs.

"Enemies will try to divert us from our point by frivolous objections and foolish attempts at abusive raillery.

"How could any editor dare to state that the *National Medical Association*, 'with one exception, is precisely in conformity with the plan of the *British Medical Association*?' How ask, 'In what respect does it differ from the *Association of Surgeons*, from the *Medical Protection Assembly*, or from the *Provincial Medical Association*?' Why, the British Medical Association (I mean that of Waterloo-place notoriety) did nothing but obtain their five-pound fees for their mock diploma and eleemosynary fund. The *National Protection Society* occasioned discord, and broke up, with Mr. Wakley's amiable and skilful superintendence, the plans of the reformers, occasioning more harm in a short time than any society that has ever been called into existence;

they never, as the National Association is now doing, established the representative system of government, and a National Medical Institute. These assertions, as well as the statement that the Association is defunct, are too contemptible for further notice, and are not likely again to divert the profession from its duties.

"As to the proposal in the same journal for 'the immediate opening of a registration office, with an efficient staff of clerks,' &c., in order to 'petition—petition, and petition,' I answer, the medical public have 'petitioned—petitioned—petitioned,' and petitioned for these eleven years, until they have become disgusted and wearied. They have petitioned and petitioned, but here they have stopped short—for where has been the medical bill on the strength of it, and where have been the strenuous, systematic, and persevering workers in the House, persisting in pressing forward a wholesome measure of representative government amongst the members of the profession? It has ended in the pretence of doing something towards the termination of the session—a mere subterfuge.

"With regard to the duty of the council of the *National Institute*, I would tell them that theirs is an awful responsibility. No men ever possessed a finer opportunity of obtaining the plaudits of society and the blessings of posterity than they have. Not only does the welfare of all their professional brethren depend in a great measure upon their conduct, but that of their children and children's children, yea, perhaps, that of countless generations. To the gentlemen of the future council I would say, adhere to your principles of free representation, throw open your appointments to the competition of the profession at large, and you will be supported by the profession and by the public.

"You will have, by virtue of your promptitude and purity of action, the force of public opinion with you, and a charter will follow as a necessary consequence; but in a ratio as you flag, so will your success fail. You must depend upon no Cabinet, because no Cabinet (to such a degree are Ministers earwigged by our false friends and secret foes) will of their own accord bestow a charter that will satisfy the profession. If you do your duty and have the public with you, whatever may be the political type of the Cabinet, you will be able to dictate your own charter. Again, I say, put not your faith in any party. Depend on yourselves.

"With regard to the constitution of the governing council of the Institute and the board of examiners, I am strongly of opinion that the council and the board of examiners should not be combined. The former is a governing and executive body, and requires men of probity and business. These men should be selected by the profession—as they are about to be—the profession being best able to form a practical estimate of their deserts.

"On the other hand, the object or purpose of the examining board is very different—purely scientific; therefore, as science is their object, they should, I think, be chosen by *concours*. Thus elected, in two different modes, they would be a salutary check upon each other. I would not exclude the examiners from being chosen on the council by the body of members on the score of their being already examiners.

"The degree of estimation in which the diploma will be held and sought after will depend, for the most part, upon the intrinsic value of the examinations.

"In order that the public may derive full benefit from professional worth and the laudable exercise of human intellect, the contaminating hands of Government influence and private patronage should, of all things, be kept aloof from medical institutions and elections: they form in our profession a barrier that disheartens the best disposed students, and degrades, paralyses, and disgusts a vast number of the most deserving and best qualified medical men.

"A good medical reform will occasion a greater demand for medical men, both on sea and land.

"By the principles of medicine being more immediately brought under the cognizance of the public, the latter will better appreciate the value of well-qualified practitioners, and will entertain a greater



taches to them, make the interest of the apprentice their constant care, and afford him every facility and assistance in the prosecution of his studies. Still less would I overlook the great advantages afforded to the hospital apprentice in the union of a wide and constantly-accessible field of experience, with the instruction and superintendence of one who having recently completed his own studies, and passed his own examinations, is still possessed of all that minute and detailed information which is so essential to successful teaching. The situation of the apprentice in London, or in the large provincial towns possessed of medical schools, is also highly favourable, as it combines with the comforts of a home and large opportunities of experience, great facilities for acquiring elementary knowledge.

But it is not by exceptional cases, however numerous, that the merits of a great question are to be determined. We must take a broad and comprehensive view of the rival systems, balancing carefully their respective advantages and disadvantages, and taking care that prejudice has no part in the decision.

A comparison instituted in this spirit would, I believe, issue in favour of a medical education commencing at the college and hospital. Among the advantages of this system I would specify the habit of regular application to study, and of submission to discipline, carried from the school to the college, taking the place of the five years' apprenticeship, with its scanty occupation, its irregular instruction, and its necessarily imperfect surveillance; a residence in the metropolis, with its works of art, its exhibitions of machinery, its scientific institutions, its many innocent amusements, contrasted with a residence in a country town, so deficient in the means of innocent relaxation; and lastly, the association with a large number of young men engaged in the same studies, animated by a wholesome *esprit de corps*, and possessed of equal or superior talents, contrasted with the comparative isolation so often productive of a fatal self-conceit. Such are some of the advantages attendant on the system of consecutive school and college education.

I am aware that the advocates of the system of apprenticeship will support it on the ground that it affords to the pupil facilities not otherwise attainable, that it introduces him at once to the practical operations of pharmacy and the minor operations of surgery, and after a time to the treatment of disease. This argument is deprived of much of its force when we consider the little time required to master the practical details of pharmacy, compared with that which is unprofitably spent behind the counter; the small number of the minor operations of surgery which is practised, and the unnatural process which makes the treatment of disease to precede the instruction by which alone medicine can be made a rational art, and the practice of it a reasonable proceeding.

Common sense and daily experience point to the instruction in principles followed by their practical application as the best and safest sequence, and medicine ought most certainly to form no exception to the general rule. The practical character which, as I have already had occasion to notice, medical education is everywhere assuming, renders the system of apprenticeship less necessary than it was; and, if it should be found that the facilities afforded by the hospital are not sufficient to prepare the student for the responsibilities of private practice, a modified system of apprenticeship, resembling the condition of the unpaid assistant, might be most advantageously made to follow the obtaining of a diploma.

I throw out these few suggestions not as exhausting a very interesting and important subject, but with a view of inviting attention to a leading question connected with medical education—a question which is not without interest in this college, where it is not unusual for the pupil, after having received his school education in the lower department, and completed his preliminary training in the department of literature and science, to enter at once upon his medical studies, without the intervention of an apprenticeship. Believing this course of proceeding to be, on the whole, advantageous, I cannot but regard it as worthy of all encouragement, and

I think that the considerations which I have thrown out in reference to the comparative security of a residence in the metropolis may be looked upon as supplying an additional argument in its favour.

But this course of education presupposes, as an essential condition of its success, a system of discipline combining college residence, daily religious observances, a regular attendance in the college-hall, an early closing of the college-gates, a well-organized plan of surveillance, and authority to check and punish all offences against good manners and the rules of morality—a system, in fact, modelled upon, but not following too closely, that established in our old English universities, and which, whatever its defects, has the sanction of experience and the stamp of success.

It is a system which assumes the responsibility of the parent, and asks for ready acquiescence at the hands of the student, on the ground that it aims solely at his advantage, by the sacrifice of the time and convenience of those by whom it is administered. Nothing but an anxious and conscientious desire for the welfare of the student could induce the authorities of the college to impose or to undertake the ungrateful task of reproof and correction. Fortunately the experience of this place shows how very rarely this painful exercise of authority is necessary, and how very generally the true meaning and spirit of the collegiate system is apprehended and appreciated. When properly understood it is nothing more nor less than the delegation of the undoubted authority of the parent over the minor, and, in the case of those who have passed the age at which parental authority is understood to cease, the voluntary submission to rules and regulations which every young man of common sense would impose upon himself; but which every one who has learnt by experience his own occasional want of self-control would wish to see administered by any hand rather than his own.

The collegiate system, then, which, as applied to medical education, was first put in practice within these walls, would seem to be peculiarly adapted to the gradual disuse of the system of apprenticeship, and the altered character of medical education consequent upon it.

The success of this great experiment has been complete, though it has hitherto been carried out on a more limited scale than could have been desired; and its effect on the character and conduct of the medical pupil has been precisely such as the experience of our ancient universities would have led us to expect.

It is a matter of common observation that a residence at our English universities, even when it is not the means of adding materially to the literary or scientific attainments of the student, has an effect, difficult to describe but easy to recognise, on his manners and deportment. It makes him emphatically a gentleman. And this it does, not by virtue of the studies in which he engages, but by the extended intercourse with young men of his own age, his equals and superiors; by the formation of an *esprit de corps*, by the influence of a sound public opinion; and, above all, by that self-respect which a voluntary submission to a moral and religious discipline insensibly creates. Under the wholesome influence of this system of collegiate discipline, the character of the medical student is undergoing a most salutary change. The prejudice which had been created against him is fast wearing away, and he is earning for himself a character more in harmony with that of the profession to which he belongs.

When we reflect on the social importance of our profession, the influence which it must ever exercise on individuals and on the public, the access which its members enjoy to every rank of society, from the highest to the lowest, and the delicate nature of the duties which it has to perform, it will be difficult, if not impossible, to exaggerate the importance of a system of education which, while it provides in the most liberal manner for the intellectual training of the medical student, and holds out to him every possible inducement to exertion, surrounds him with wholesome restraints and decent observances, and constantly reminds him of his highest duties and most abiding interests.

To the rising generation of medical students, brought under this wholesome influence, surrounded by facilities and encouragements, and subjected to mild and reasonable restraints, the profession looks with confidence and hope. The character of the medical student has become (I will not say with what degree of justice) a byword for vulgar riot and dissipation. Be it your task to rescue it from this foul reproach. The profession has been, and still is, too full of rivalry and contention. Be it yours to cultivate a spirit of peace and concord. Medical men have been long labouring to bring about a reform which shall conciliate rival interests, annihilate unnecessary distinctions, and substitute order and unity for the present perplexing maze of authorities and regulations: in a word, they have sought to infuse a catholic spirit into a profession which, rightly considered, has something of the sacredness of a religion; but in vain. It is clear that the time for so desirable a consummation has not yet arrived. Be it yours to hasten it by a conduct and demeanour governed by the spirit of the much-wished for change. Society, especially that part of it which exercises the widest influence over public opinion, shows a disposition to view with distrust and alarm the growing devotion to scientific pursuits, as tending to foster a spirit of doubt, if not of unbelief; and it has singled out the medical profession as more peculiarly an object of suspicion. Let it be your part, as men of science no less than as medical men, to remove this suspicion, if well-founded, and to give it no support if based on a misconception of the natural tendencies of science, and a misapprehension of the actual facts of the case.

For my own part, I believe that the mistrust of science in general, and the accusation so confidently urged against medical studies in particular, are altogether founded in error. They are among the leading fallacies and prejudices of our times, remnants of the spirit which of old incited bigotry to the persecution of philosophy, symptoms of a jealousy not unnaturally felt by men immersed in studies which tend to substitute a poetic admiration of the past for a practical devotion to the business of the present and the future.

Between these two classes there has always been an antagonism felt, if not expressed. The scholar, with a firm belief in the value of that word—knowledge, which has engrossed all the energies of his youth and early manhood, struck with a profound admiration of the nations which have carried purity of language to its highest pitch of perfection, and deeply interested in a history which abounds in traits of wisdom, patriotism, heroism, and genius, lives naturally in the past, and looks with comparative indifference on the present and the future. The man of science, on the other hand, without altogether denying the value of the word—knowledge, and acknowledging the claims of the past to our admiration and respect, asserts the still higher claims of the present and the future, finds in the pursuits of science his chief pleasure, and in its practical applications to the business of life, a sacred duty and a high privilege.

The largest and most influential body of educated men in England, the clergy, are, for obvious reasons, the great support of scholarship. A knowledge of the ancient languages is, as I have already intimated, essential to the right performance of their sacred duties, and, by a very natural generalization, they, as the educators of the upper and middle classes, have extended the system of classical education to all who come within the scope of their teaching. Thus it is that classical knowledge has come to be regarded, by the great mass of the nation, as an essential part of the education of a gentleman, as having a mysterious power of elevating and refining the tastes, and, what is more important in reference to the present question, as being conducive to the interests of religion.

The dead languages, and those branches of knowledge which were most successfully cultivated by the philosophers of Greece and Rome, being thus made the first object of attention in boyhood, and occupying a prominent place in the more advanced education of early manhood, and in the preparation for the sacred duties of the priesthood, it is but natural that, with this attachment to literature,



should spring up an aversion to the pursuits of science, a distrust of its tendencies, and a readiness to adopt any opinion to its prejudice which might appear to have a fair foundation in fact; and more especially if it were alleged, as it has been, that scientific pursuits tend to foster a spirit of scepticism and unbelief.

This appears to me to be neither an uncharitable nor an unreasonable explanation of the ready credence which has been given to the accusations brought against science in general, and the scientific studies of the physician in particular—accusations which, as I sincerely believe, derive as slender a support from fact as from the nature of things.

In asserting my belief that these accusations have no real foundation in fact, I would not be understood to deny that sceptics and atheists have been found in the ranks of men of science, and among the professors of the healing art. I would merely affirm that the same melancholy fact is true, to at least the same extent, of the pursuits of literature; and, though I am not fully prepared to balance the one against the other, I have little hesitation in expressing an opinion that the pursuits of science would be found in this respect the more harmless of the two. At any rate I am prepared to go to the length of denying the truth and justice of the accusation brought against the study of science and of medicine, as far as it pretends to be founded in fact.

I have still less hesitation in expressing an opinion that the accusation to which I have referred derives no support whatever from the nature of things. It is no injustice to literary pursuits to state that they have no direct and obvious tendency to encourage modes of thinking favourable to religion; but it is acknowledged on all hands that scientific inquiries are peculiarly suggestive of such trains of thought. Natural history and sciences of observation in general deal directly with the works of creation, are constantly busied in tracing design, and as constantly pointing to an Almighty Designer; and I would appeal even to those who have unconsciously imbibed the prejudice (for I must be allowed so to term it) to which I have referred, whether anywhere out of the inspired volume are to be found such eloquence and heartfelt acknowledgments of the being, power, and goodness of the Deity, as have flowed spontaneously from the pen of the anatomist, the naturalist, the geologist, the astronomer?

The same tribute, too, is due to those who have cultivated sciences of experiment, as distinguished from those of mere observation, and who have found in the phenomena of dead matter, and the powerful agencies by which all its surprising changes are brought about, the same evidence of design, the same impress of an Almighty hand.

These sources of religious emotion are as unfailing as they are pure. Even admitting, as I most willingly do, that some studies of a literary nature—historical studies more particularly—are calculated to give rise to similar trains of thought, still for the living student of history its leading facts admit of no increase of number; but the sciences of observation and experiment open a field of inquiry to which it is impossible to set a limit. With every new region we explore, with every new and improved instrument we invent, new wonders dawn upon us. The telescope resolves the film of light into worlds and systems of worlds; the microscope peoples with swarms of living and moving creatures the drop of water or the grain of sand; while reason, aided by observation and experiment, knits together scattered and apparently unconnected phenomena, and, by establishing wider generalizations and more comprehensive laws, not merely opens out a larger prospect of the works of creation, but sheds upon them a clearer and a brighter light.

Nor are scientific pursuits to be commended solely as sources of religious emotion, and, therefore, as useful auxiliaries to religion. This is but one of two uses which revealed themselves to the high priest and prophet of natural and experimental science, who foresaw and foretold that, while it would be the means of erecting a *rich storehouse for the glory of the Creator*, it would minister to the *relief of man's estate*.

How strongly ought this, the second use of science, to recommend it to those who, throwing off idle and unfounded prejudice, shall acknowledge that it does really furnish a rich storehouse for the glory of the Creator!—the relief of man's estate! In this, too, science goes hand in hand with religion, investigating man's actual condition, displaying the physical causes of his destitution and degradation, bringing into the open light of day the evils under which he labours, denouncing the barbarous negligence and ignorant wastefulness which condemn him to poverty in the midst of riches, to want while surrounded with the elements of abundance, to disease and premature decay while amply supplied by nature with all the appliances that minister to the preservation of health and the prolongation of life.

But, not content with displaying his actual condition, Science devises the means for its improvement. She gives scope to labour, and economises time by the invention of tools and machinery; creates abundance by developing all the resources of the land; brings cheap and wholesome amusement into successful competition with low and debasing vice, and, acting always in the spirit of the divine command, bends all her efforts to the prevention of that poverty which almsgiving—an obedience to the letter—if it do not create, does nothing more than palliate.

Of all the means which have been suggested for the prevention of poverty, the most certainly effectual would be a comprehensive system of sanatory regulations. This system is enforced by every consideration of justice, mercy, and true economy, and, I am happy to say, has found some of its most earnest and active advocates among the members of our own profession.

There is one other use of scientific studies which I cannot omit to mention, though at the risk of detaining you somewhat longer than I could have wished—I mean their use as a mental training, to which it is the more necessary to allude, as in most schemes of education it is strangely overlooked. If education be a preparation for the business of life, then it ought to make provision for the exercise of all those faculties and powers which are called into use in the pursuits and occupations of manhood.

It is melancholy to reflect how large a proportion of those who are destined to hold influential and responsible positions in society are constantly entering upon the duties of life without any previous training of the faculties which are to be called into daily and hourly exercise—the reasoning powers undisciplined by those mathematical studies which supersede by use the dry and barren rules of logic; the senses unexercised by any of those sciences of observation which add to the exact study of nature; the habit of arrangement and classification so important in all the business of life, and equally unpractised in those sciences of experiment which so happily combine the most unexpected revelations of the great secrets of nature with the most subtle and refined processes of analysis, and the most strict and convincing trains of reasoning.

Deeply convinced, as I am, that this practical training of all the faculties of the mind, by studies peculiarly fitted to exercise them, ought to form a constituent part of all education (not excepting even the education of that profession to whom classical studies are peculiarly important), I cannot but congratulate the members of my own profession on the coincidence of the scheme of study which has been laid down by the examining bodies with that which reason and common sense would prescribe. I think, too, that if time permitted, I might adduce many and striking examples of the admirable preparation which the studies of the medical man have formed, for other practical and scientific pursuits, to which circumstances or his own inclination have led him.

I feel that, in the short and imperfect observations which I have been led to make on the true influence of scientific pursuits in reference to religion, I lay myself open to the charge of having discussed the subject with a brevity unsuited to its surpassing importance. But those who feel with me that science (and medical science more espe-

cially) has been most unjustly suspected and aspersed, and are aware of the hold which this prejudice against it has taken on the public mind, will not be surprised that I should have seized this opportunity of vindicating its character and upholding its claims.

If at any time such considerations may be permitted and encouraged, it will not be thought that they are now out of place: for never before in the history of the world did science make such rapid strides; never before did its practical applications assume such vast importance; never did its true tendencies and bearings become a question of such engrossing interest.

Nor is this place inappropriate to the discussion of such topics. Its situation in the metropolis of a great empire points it out as in the highest degree favourable to the pursuits of science; as destined to take a leading part in scientific education; as a centre from which shall go forth to every part of England and the world, no insignificant proportion of those who, in their several spheres, shall be engaged in applying the great principles of science to the "relief of man's estate."

If Science be indeed, as I have feebly endeavoured to represent her, a worthy handmaid of religion—if she be indeed engaged, as Lord Bacon long since proclaimed, in erecting and furnishing a *rich storehouse for the glory of the Creator*—where will she find a more appropriate dwelling-place than here, where religious instruction and moral discipline have been set forth as inseparable from all education?

If, in vindicating science in general, and the study of medicine in particular, from what I conceive to be unjust and unfounded aspersions, I have weakened arguments which I have heard advanced even within these walls, I have the satisfaction of feeling that the general argument in favour of moral discipline and religious training, as applied to students of all denominations, will still remain in all its unshaken firmness, while scientific and medical studies will have been rescued from that exceptional position to which they had been degraded, and in which they have been too long suffered to remain.

#### ST. BARTHOLOMEW'S HOSPITAL.—INTRODUCTORY ADDRESS BY MR. PAGET.

The introductory address at this institution was delivered by Mr. Paget. The subject of it was "The Motives to Industry in the Study of Medicine." He urged the motive of self-interest, in that it was by industry alone that the enjoyment of even a moderate degree of success could be attained; but insisted much more strongly on the motives arising from the duty of cultivating the mind for employment in benefiting others—from the great responsibility of the medical practitioner—and from the pleasures arising from the pursuit of a science which is eminently difficult, various, and useful, and which leads to the knowledge of the noblest of the Creator's works. He mentioned, also, several motives to industry connected with the arrangements of the Hospital and College, and alluded to the eminent attainments of many distinguished members of the profession, who had received their medical and surgical education at the Hospital. Mr. Paget concluded an eloquent and feeling address by exhorting the students to caution, lest the knowledge which industry would acquire should be in any measure tainted by selfishness, cunning, or irreligion. The theatre was crowded by the former and present students of the Hospital, and the oration was received with frequent applause. After the lecture the visitors adjourned to the large hall of the Institution, where a *conversazione* was held, and tea and coffee were partaken of.

Aristotle would appear to have almost approximated to the discovery of the circulation. He says, "The heart is the origin and source of the blood; and as in watering gardens the water is conveyed in numerous rivulets from one origin or fountain, so has nature conducted the blood in streams throughout the whole body, for the blood is the elementary matter of all other parts."



bestow it on a person who in no way needed it. The man had to be awake at the end of an hour, as I wished the spectators to hear his first words; and I need not say that he knew nothing about what had been done to him, and stared in mute astonishment at his improved appearance. His blind father was brought in, and was told by his son that he had felt no pain, and was now quite comfortable, and the simple old man actually believed him! as was evident by the beautiful play of his features, and the blessings he invoked on those who did it.—April 29. He was entranced to-day, and the dressing removed without giving him any pain.

"*Tapping*.—April 21. Sheik Meeah Jan, a boatman, aged forty. His abdomen is much distended with water, and his breathing oppressed: to be tapped to relieve him.—April 29. The water was withdrawn when he was in the trance to-day, and he did not awake till half an hour afterwards. He then said, that when he went to sleep his belly was full, but was now empty; but God only knew how it happened.

"*Paring a Sore*.—April 29. Sheik Dannoo, a cart-driver, aged thirty, has been suffering for four months from a sore on his right heel, of which the skin is very thick, and partially detached from the surrounding parts. The whole diseased skin requires to be cut off the plantar fascia. He was entranced on the first trial, and I pared the whole heel to the quick, to which he was as insensible as a cheese: he awoke in half an hour after, and did not know anything had been done to his heel.

"*Operation for Hydrocele*.—April 17. A prisoner came to hospital to-day with a hydrocele; it was very tender, and he could not bear it to be pressed. I desired him to be mesmerised for the first time in the presence of Mr. Baxter and Mr. Littlewood, and in half an hour performed the operation without disturbing him, and I showed that the tender part could now bear severe pressure without his feeling it. I left the room, that the gentlemen alone might be present when he awoke, and he told them that he had a swelling when he lay down, but there was none now, and he knew not what had become of it.

(To be concluded in our next.)

**HOMŒOPATHIC ABSURDITIES.**—"Arsenic, which, by its extreme power to change the state of the human system, may become as dangerous in the hands of an ignorant person as it is beneficial in the hands of an educated one, would not have produced such striking cures of cancerous ulcerations about the face, if this metallic oxide did not possess the power of exciting in healthy persons very painful and incurable ulcers, which, according to some, may be malignant and corroding, and according to others may put on a cancerous action." (Organon.) Arsenic, then, according to Hahnemann, produces in a healthy man corroding and malignant ulcerations? Nothing can be more incorrect or more absurd than such a statement. If the author of it had ever studied the effects of arsenic on animals, or its action when administered medicinally to man, he would not have stated fallacies for facts. If arsenic is useful in cases of cancer, it does not cure the disease, and it is not the only remedy which possesses the power it is said to hold. This power cannot arise from a supposed property, inherent in arsenic, of producing malignant and corroding ulcers, because it does not possess such a property. Homœopaths will say undoubtedly that we do not understand their founder's meaning. Very likely not; still the fact is a simple one; it must be either true or false. What constitutes a malignant and corroding ulcer? Is it possible, from the vague assertions of obscure authors, to draw such formal inductions as the above? Homœopaths, however, do not look so closely into matters. In Hahnemann we find numberless theories founded on facts of just as little value. Thus he tells us that arsenic produces in a healthy man buboes and dyspnea, and that on

this account it cures pestilential buboes and quinseys. We deny these assertions entirely, as being opposed to the true facts. We can easily conceive, however, that, on account of the ignorance which prevails on medical matters, men may be found who really believe such a system.

#### TO CORRESPONDENTS.

*THE MEDICAL TIMES* is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

T. T.—We believe the charge made against the University School by Junius is based in truth; and we regret the circumstance, for it is no pleasing duty to admit that new institutions are so rapidly falling into the worst abuses of the old. To name any other school, however, with especial recommendation, when there are so many equal—in merits and demerits alike—is a task at once so invidious and unjust that an editor of ordinary honesty must shrink from the responsibility.

"An Aged Surgeon-Apothecary" is evidently another forgery from the same bureau which forged the "Nottingham letter of a Member of the Provincial Association," and the false letter of a "Member of the Committee of the National Association." It is disgraceful to the writer, and we are almost ashamed of a profession afflicted with such characters.

We have received several letters at various times, from apparently the same person—all in a disguised hand (the last from Hanwell), calling upon us to notice the "abomination of a non-medical man, Mr. Mills, playing the deputy-coroner to the medical "Coroner Quackley." We fancy the writer has more than a public interest in the correction of what he describes as "a painfully infamous anomaly." For our parts we see nothing in the "infamous anomaly" but a very natural event occurring in the usual sequence of inconsistencies, for which everybody was prepared.

An Apothecary.—The *Conspectus* of the Five Pharmacopœias is publishing in "The Pharmaceutical Times." The second part is ready. The Five Pharmacopœias, published separately, would cost more than three guineas.

A Student eulogizing the Westminster School, and dwelling on the zeal displayed in its favour by the different lecturers, among whom Dr. Basham and Mr. Phillips come in for such liberal panegyric, should seek some more decisive and effective mode of showing the students some of the unprincipled and deliberate "falsehoods" their school has been exposed to. Why do not the students meet, state the circumstances, and publicly brand the calumniator?

A Student.—It is not our place to mention the names of gentlemen whose contributions we have rejected or not decided on.

Quæstor.—We only know that, if Mr. Thompson do take such an establishment, his Parliamentary friend would be a very suitable inmate. As Swift founded the hospital he subsequently became an inmate of, these parliamentary investigations in the same direction point to a similar finale.

Does not Dr. Orpen yet understand that to expose every misstatement, and repel every attack, in the journal he is unwise enough to notice, would be the worst use to which time can be applied? It would be a task endless as to duration and useless as to correction. The public now fully understand, that the asserting a thing in that vehicle is satisfactory evidence that it is untrue. Of course the Birkenhead Ladies Charity was founded seventeen years before Dr. Orpen suggested another.

Mr. James, who takes such trouble to prove that the Editor of the same journal "knew he was uttering a falsehood in asserting that the Westminster School of Medicine would not be opened this year," must receive the same unsavoury.

Mr. Kingston.—Of course the Editor "knew the site and terms of Mr. Dermott's school"—and of course "it was a very humble specimen of a very disgraceful malice, to trump up a letter by his private secretary, insinuating and asserting in circuitous language the obvious falsehoods, that the Lecturers of the Charlotte-street School of Medicine had no locality for their school—and their advertisements were only published to delude the public;" but still what can we do when there are persons who will take such liberties with truth—and with the profession,

A Member of the College.—Of course the low attack on Mr. Ross, the secretary of the National Association, is "a falsehood as well as a slander;" and, of course, done from personal malice. But what can we do? We profess ourselves helpless against such audacity of misconduct. The business is more the profession's than ours.

An Observer.—With regret we say it: the same answer. We have nothing to do with that journal's implied charges, and express insinuations that Dr. Marsden and some of his colleagues have appropriated the funds of the Gray's-inn-road Free Hospital. Whether the charge was made to get in that Editor's son to the post of surgeon to that institution—a job just effected—we do not know.

F. R. S. asserts that the Dr. Smith, brother-in-law of Mr. Yearsley—laudatory dedicatory of anonymous books on stammering to Mr. Yearsley—certificate maker to the extraordinary success of tonsil surgery—and amanuensis of Dr. M. Hall, is still connected with the "Lancet." What is that to us?

Dr. Brown.—The petition by the physician given in our last number was presented to the House of Commons by Mr. Craven Berkeley, a few days before the Registration Bill was overthrown.

"A Surgeon" who writes so out of breath and so aghast, that Dr. Forbes, after being supported by the highest Professors, throws the weight given by that support into the scale of the Hydropathists—et hoc genus omne—will find a letter on the subject from another correspondent. Whether Dr. Forbes tried Morrison's pill or Coe's nostrum on his own body, before asking medical men (!) to swallow them in his Journal, is a question that should be addressed to his editorial stool, not ours. To the same authority we should refer the query—how the Learned Physician manages to be Allopathist—Homœopathist—Mesmerist and Anti-Mesmerist—Hydropathist and Morrisonian, at one and the same time. All we know is that with so many creeds, it would be difficult to find oneself in collision with the most quackery-loving of our fashionable patients. Dr. Forbes feels, no doubt, that he is but fulfilling the first duty of a Medical Journalist—reflecting, as in a mirror, every medical opinion.

Inquirer.—The Medico-Chirurgical Meetings will commence in November.

Dublinensis.—The last number of "Chelius" contained seventy pages more matter than those previously published.

An Apothecary.—We think not.

A Sufferer.—We have frequently stated that we never prescribe in the columns of "THE MEDICAL TIMES." A sufferer should apply at some hospital.



## THE MEDICAL TIMES.

SATURDAY, OCTOBER 10, 1846.

## THE MEDICAL TIMES PRIZES FOR THE BEST REPORTS OF MEDICAL AND SURGICAL CASES.

THE interest excited by our last Prizes, and the very salutary influence they exercised over a large body of Pupils, have been so far encouraging that we feel great pleasure in proposing for Professional Competition, for the year 1847, the following Prizes:—

Twenty-five Guineas for the twelve best reports of original cases in hospital or dispensary practice.

Ten Guineas for the twelve reports of original cases, as above, second in merit.

Five Guineas for twelve reports of original cases, as above, third in merit.

In offering these prizes we repeat, in the words used in 1845, on a similar occasion, "The aim of the MEDICAL TIMES is, above all things, to promote the SCIENCE of our Profession. Now, the groundwork of the best part of our *practical* science and of most of our subsequent Professional worth is laid down in our studentship; and the great and the only true teacher of the student must ever be—hospital practice. Lectures and books have their uses; but it is by the bed which holds a human being, with the joy of health or the pain of disease, the chance of life or the peril of death, depending on the aids of science, that we acquire our true knowledge. There is there for the student no listless ear, no dull eye, of the lecture-room; it is not the memory alone that is appealed to, or some abstract love of a pedantic and inapplicable lore. Every power of his mind is engaged: he is forced by the sympathies of his nature to hear and see, to observe, to reason, to prognosticate, to be EXPERIENCED: each patient's case is a volume of medical science in its most practical aspect, forced on his acquaintance for life!"

The authors must be students who shall not have received any medical diplomas or licenses.

Six of the cases are to be medical, and six surgical.

The cases must have occurred during the year; and the names of the gentlemen under whose treatment they may have principally come must be distinctly mentioned.

Three arbitrators will be appointed—one surgeon, one physician, and one general practitioner—whose names will be duly announced. The decision will be on the 1st of May.

The Prize Reports will be published in succession in the MEDICAL TIMES, with the names of their authors.

They are to be sent to the Editor of the MEDICAL TIMES on or before March 1, 1847, accompanied by a certificate from a surgeon or physician to a hospital, declaring that the writer is *bona fide* a medical student. A motto or device must be inscribed on each report, to identify the author, whose name, with a duplicate of the motto or device, must be mentioned in a private note, which will be opened when the award shall have been made.

"Nec me pigebit, in gratiam adolescentum, hanc scribere epistolam."—CADMUS MILESIUS.

THERE are various seasons of the year that bring their several duties, as systematically as certain hours of the day herald particular meals. Autumn is one of this class. To the medical profession of this country it is a most interesting time. The practitioner thinks of the 1st of October with as much excitement and enthusiasm as a sportsman! Men of all ages, from those just commencing practice, to those just leaving it, associate this particular day with some of their choicest reminiscences. They recal something of the astonishment that came upon them when they gazed upon London for the first time—upon its countless congregation of houses; some the haunts of poverty, infamy, and ignorance; others the depositories of wealth, intellect, and influence—upon its "gorgeous palaces," its seats of learning, its numberless amusements, its myriads of people: some, busy in the briskest enterprises of life; others, the *fruges consumere nati*, idling away their time as though it were an enemy only worthy to be killed. They think of all these things, that once startled and astonished them so much; and then of the awe and solemn bearing with which they entered, for the first

time, the wards of a great metropolitan hospital; and of the horror with which they encountered the form of a fellow-creature mangled by the ruthless hand of the dissector. Then, there is the remembrance of the several lecturers—the eloquence of this, the wit of that, the erudition and scientific refinement of the other—all these are topics with which memory is busy, at this season of the year, in the old and the young of our fraternity. And a pretty reminiscence it is, to those who, having passed the probation of studentship with honour or eclat, look back upon it, through the vista of many years' professional success, as the heritage of their industry. These are bright pages in the book of memory, which are worth the working for, whatever the trouble or cost of their attainment!

We offer these remarks as encouragements and incentives to our young friends, the students, to whom, this week, we especially address our remarks. It is with much pleasure that we devote ourselves to the task, for the subjects of it have ever commanded our sincerest wishes for their welfare, and our best exertions in their behalf. It is with infinite gratification that we see the medical student occupying a rank which some years ago was

denied him. It is within our personal remembrance, that the surgeon's apprentice was merely regarded as a shopboy, and a fit associate of the servants in his master's household. Indeed, himself was estimated only as a superior menial. We have known premiums of from two to five hundred pounds extracted from unsuspecting parents, whose sons, the pride and hope of their families, were subjected for five or seven years to the gentlemanly duties of attending to the door, cleaning the surgery, and sometimes the horse; running of errands, compounding medicine, and carrying it out; posting the books; writing the bills, and then dunning the debtors for payment. Many a case of this kind have we known, in which the pupil was neither permitted to perform a minor operation in surgery, nor to attend a case of midwifery, until nearly the termination of his apprenticeship. The opportunities of general practice, again, were ordinarily few and grossly neglected. A frequent error with parents was to put their sons with men in first-rate business—absurdly imagining that the lads would thereby be one day in a position to rival their masters. As well might a bald-headed man expect to get a crop of hair by lying cheek-by-jowl with an ass! Men in the highest practice have no poor patients for their pupils to treat; and as for the rich ones, all the apprentice has to do with them is, to make up their medicine and, perhaps, take it to their houses!

An apprenticeship with the lower order of practitioners, "in the olden time," carried with it many disadvantages. In days gone by, these said men were little better than their competitors, the horse-doctors. Their business was entirely routine, and, of course, performed without any regard whatever to rational pathology and diagnosis. They treated such a disease in such a way, because their fathers or their masters before them did; and this was all the instruction they had to impart to those who were to be their successors in the art and science of healing! Clinical tuition was, of course, out of the question; whatever practical knowledge the pupil gathered was empirical, and he generally left his master's service profoundly ignorant of even the elements of his profession. There is no stretch of truth in this statement; we have been pained with a sight of the living picture often! Can it be a matter of wonder that error, absurdity, and quackery should have crept into our profession, with such opportunities as these for their introduction and encouragement?

We rejoice, however, that in the practitioner of our own day the pupil meets with a different master, both as regards intellectual competency and personal kindness, than was met with of old. The superior finds that his temporary subordinate is best treated like a gentleman and a companion—and he treats him so accordingly: he finds, moreover, that the pupil well instructed lightens the burden of his master's duties, and thus the gain of the one is an advantage to the other.

But there is a higher ground than this, which we rejoice to find is now taken, both by the instructor and the instructed. We mean the



flesh; but still the symptoms are often very much alike in both complaints; and in many cases we are unable to form a truly correct diagnosis, until we have watched the effect of treatment: if it be bronchitis, it yields; if phthisis, it is incurable, and sooner or later proceeds to a fatal termination.

## ORIGINAL CONTRIBUTIONS.

### REMARKS ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARK-WICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

### ON SACCHARINE OR GLUCOSIC FERMENTATION.

Foureroy, following the example of some of the ancient chemists, admitted the existence of a saccharine fermentation; but it was not until after the experiments of Kirchoff on the transformation of starch, those of M. Dubrunfaut on germinated barley, and the splendid researches of M. Payen on diastase, that any importance was attached to the facts connected with it.

If we rank among the saccharine fermentations all those reactions resulting in the formation of glucose, by the transformation or the disintegration of an organic matter, under the influence of an azotized substance, acting in infinitely small proportion as a ferment, we must comprehend not only the conversion of starch into dextrine (a) and glucose (b) by the action of diastase, (c) but also the production of glucose by means of synaptase (d), amygdaline (e) or salicine, or of phloridzine (f), and it is probable there are still several other analogous conditions under which glucose becomes formed.

In this memoir I shall direct my attention only to the reaction of diastase or other exciting principles on starch. Although these researches have been recorded in the general plan of experiments I have performed on fermentations, still it is necessary to allude to them, from their being intimately connected with the questions relating both to the normal digestion of feculent matters which have been investigated by M. Sandras and myself, and to a condition of the utmost importance in the study of glucosuria—a disease which attracts my constant attention.

(a) A peculiarly white pulverulent substance of a gummy nature, into which the internal part of starch globules becomes converted when acted on by alkalis, acids, or diastase. There appears to be two kinds, differing only by the one being coloured purple by iodine, and the other not. Payen states its composition to be C 12, H 10, O 10. It derives its name from *dextera*, the right hand, and was so called by Biot, from its causing a very great deviation to that side of the plane of polarization of a polarized beam of light.—TRANS.

(b) A term applied by Dumas to sugar of grapes, starch sugar, and diabetic sugar.—TRANS.

(c) A white, amorphous, pulverulent substance, soluble in water but insoluble in alcohol, formed in barley and other seeds during their germination. It derives its name from the power it possesses of separating (*διασπῆμι*, to separate) the membrane from the starch globules.—TRANS.

(d) A term given by M. Robiquet to a peculiarly opaque, hard, horny and friable matter, of a yellowish-white colour, and soluble in water, found in the white of almonds.—TRANS.

(e) A white crystallizable principle, of a sweetish afterwards bitter taste, procured by Robiquet and Boutron-Charland from bitter almonds, by pressing them, when blanched, between two hot iron plates, then treating the cake that is formed with successive portions of alcohol, and evaporating the solutions over a water-bath to the consistence of syrup; afterwards diluting this with water, and allowing it to ferment, and when this process is completed, filtering, again evaporating to a syrupy consistence, and then precipitating the amygdaline by strong alcohol.—TRANS.

(f) A peculiar principle found by Stass and De Rouinck in the barks of the roots of the apple, pear, and cherry trees.—TRANS.

I intend particularly to treat of three principal questions, namely:—1. To determine the action of different substances capable of acting like diastase on starch jelly. 2. To discover the materials by which the action of diastase on starch may be prevented. 3. To ascertain whether the formation of globules analogous to those of the alcoholic ferments is indispensable to the transformation.

1. *Of the principles which have similar properties to diastase.*

Diastase is, of all substances, that which has the most energetic action on starch jelly; but it is not the only matter which transforms starch into dextrine and glucose. Kirchoff proved some time ago that gluten also possessed this property. In a memoir printed in the year 1832, and published by the Société de Pharmacie, I have also pointed out the activity of several other substances. The following extract from this memoir, which was unknown to those authors who have since written on the subject, will show that I was then very near the truth, as regards the nature of the ferment of the saccharine transformation.

"It is evident that in germinated barley it is the gluten (vegetable gelatin) and the albumen which act as exciting agents, as true ferments, in the saccharine transformation. But we have seen that the gluten alone produced no transformation; that the vegetable albumen was considerably less energetic than germinated barley; and that a mixture of these two principles, raw gluten, had not a much more powerful action than the two bodies separately: it must, therefore, be admitted that the cause of the action resides in the modes of altering these substances. The considering it in this light may be looked upon as the expression of truth, when we show that these same two principles, in different states, are still the causes of the alcoholic and the acid fermentations. Nature is simple in her means, unbounded in her results.

"When a grain of barley is placed in favourable circumstances of moisture and temperature, the albumen and the gluten contained in the endosperm, absorb oxygen, forming carbonic and lactic acids, and react upon the fecula placed near them, as a subject for destruction: for soluble fecula and sugar are principles lower in the scale of organization than solid fecula. The embryo meets with prepared food, assimilates those parts which have become liquid, and places the disorganization in the most favourable condition for its increase. Under its influence the albumen and the gluten change only to become agents of saccharification—it renders them *saccharine ferments*. This little embryo gives to this decomposition an impulse that it would be useless for chemists to attempt to give.

"It will be seen, therefore, that the principal phenomenon in the germination of barley is the saccharine fermentation, and that, in this case, the altered gluten and vegetable albumen become true *ferments of saccharification*."

The following table shows *the action of different substances on starch jelly*:—

Name of Substance.	Result after half an hour's action at 40 deg. c.	Result after twenty-four hours' action.	Quantity of glucose obtained.
Pure lignin .. .. .	No change .. .. .	Almost null .. .. .	0
Hard-in .. .. .	Id. .. .. .	Id. .. .. .	0
Gluten .. .. .	Fluidification scarcely sensible	Viscid liquor .. .. .	0.31
Fresh vegetable albumen .. .. .	Opaline tint; no other change	Fluidification scarcely sensible .. .. .	0
Dry vegetable albumen .. .. .	Commencement of liquefaction	Liquefaction .. .. .	0
Fresh raw gluten .. .. .	Fluidification scarcely sensible	Viscid liquor .. .. .	0.39
Dry raw gluten in powder .. .. .	Evident fluidification .. .. .	Complete liquefaction	0.97
White of egg .. .. .	No change .. .. .	Viscid liquor .. .. .	Traces.
Gelatine .. .. .	Id. .. .. .	Id. .. .. .	Id.
Fibrine .. .. .	Id. .. .. .	Id. .. .. .	Id.
Putrefied flesh .. .. .	Very marked liquefaction	Complete liquefaction	0.52
Putrefied gluten .. .. .	Almost complete fluidification	Id. .. .. .	0.82
Yeast .. .. .	Id. .. .. .	Id. .. .. .	1.02
Germinated barley .. .. .	Complete fluidification	Complete fluidification	3.78
Embryo of germinated barley .. .. .	Almost null .. .. .	Viscid liquor .. .. .	0
Endosperm of germinated barley .. .. .	Complete fluidification .. .. .	Complete fluidification	3.75
Putrefied barley .. .. .	Incomplete id. .. .. .	Viscid liquor .. .. .	0.43
Diastase .. .. .	Complete id. .. .. .	Complete fluidification	Not determined.
Gastric juice of a dog .. .. .	No effect .. .. .	Almost null .. .. .	Id.
Intestinal fluid of a dog .. .. .	Id. .. .. .	Id. .. .. .	Id.
Membrane of the stomach of a dog .. .. .	Id. .. .. .	Id. .. .. .	Id.
Membrane of the small intestines of a dog .. .. .	Id. .. .. .	Id. .. .. .	Id.
Internal membrane of the gizzard of a pigeon .. .. .	Slight fluidification .. .. .	Partial liquefaction .. .. .	Id.
Id. id. of the small intestines of a pigeon .. .. .	Evident id. .. .. .	More marked id. .. .. .	Id.

Is there in the active bodies, the effects of which I have just described, a distinct principle varying in proportion, identical with diastase? or are there several materials capable of acting in the same manner as diastase in a successively, decreasing degree? This latter supposition appears to me the most probable, for I have applied the process recommended by M. Payen for extracting diastase to several of the substances above mentioned, and I could not in any way approximate the solvent activity of this very remarkable matter.

2. *Of the influence of different agents on the action of diastase or germinated barley on starch.*

The starch jelly I employed in the following experiments was composed of 1 part of fecula to 10 of water. To 100 grammes of starch jelly I added 0.1 of diastase, or 5 grammes of powdered germinated barley. The various substances were intimately mixed with the starch jelly in the proportion of 1 gramme each; the diastase was then added, and the temperature maintained at 60 deg.

#### OF THE INFLUENCE OF ACIDS.

The nitric, sulphuric, phosphoric, hydrochloric, oxalic, tartaric, and citric acids completely arrest the action of diastase on starch. This property, well known since the researches of M. Payen, was extended to all the acids; but the following experiments show that it is not general. With formic acid fluidification is only checked; with arsenious acid the action is at first retarded, but it soon becomes restored; hydro-organic acid appears to have but a very weak action, perhaps even none at all; it is the same with the acetic acid.

Tannin, and the different substances which contain the various modifications of this acid, appear at first to completely arrest the action of diastase; but after a time it is evident that it is only checked.

#### OF THE INFLUENCE OF ALKALIS.

Like the powerful acids, the caustic fixed alkalis, viz., potash and soda, completely destroy the action of diastase on starch jelly; it is the same with caustic lime. Calcined magnesia at first paralyzes the action, but a very manifest fluidification afterwards takes place. Liquid ammonia only checks the action, but does not entirely destroy it; carbonate of ammonia has a still weaker influence. The carbonate of potash and soda have a more marked effect; but that of the bicarbonates of the same bases, as also that of the basic carbonate of magnesia, is almost null.

Although all these substances, which, as we have seen, are capable of checking in a greater or less degree the saccharine transformation, have been highly recommended by various authors in the treatment of diabetes, still none of them have proved to M. Bouchardat, who has made several very careful trials of them, to be of absolute utility. Even in the most favourable cases, he has merely observed a slight decrease in the symptoms. These negative results, he says, are easily accounted for, inasmuch as, when the alkalis or the alkaline earths are employed, they soon become neutralized



and their effects destroyed by the acids that are continually secreted in the stomach. On the other hand, if the strong acids are administered, it is essential to give them in such a diluted state that their retarding influence becomes in consequence considerably weakened; and, moreover, as the fluids which flow into the stomach have the effect of still farther diluting them, they necessarily become still more limited in their action. In severe cases he gives the preference to the carbonate of ammonia, as being a very efficacious remedy, and one that has been very highly spoken of by Dr. Barlow; he prescribes it, either in the form of mixture or pills, as follows:—

Rx. Carbonate of ammonia, 3j. gr. xv.; pilum, 3v.; water, 3iij. mix.

To be taken in three doses, half-an-hour before each repast. He sometimes increases a dose of twice or even three times the quantity, in a larger proportion of water.

Rx. Carbonate of ammonia, 3v.; confection of opium, 3v. mix. To be made into forty pills; from two to ten to be taken every night at bedtime.

In slight cases he occasionally has recourse to the natural Vichy waters for completing the cure.

The other alkaline remedies he believes to be better suited for those cases that are not very severe, and in which the urine contains lithic acid, together with the saccharine matter.

#### OF THE INFLUENCE OF SEVERAL SIMPLE BODIES.

Porphyzied iron and powdered zinc have no influence on the progress of glucosic transformation; chlorine and bromine completely annihilate it; iodine at first checks the action, but after a time an evident fluidification is observed.

#### OF THE INFLUENCE OF THE COMPOUNDS OF COPPER, MERCURY, SILVER, GOLD, AND LEAD, &c.

The neutral sulphate and acetate of copper arrest the transformation of starch jelly when acted on by diastase; the bichloride of mercury still more effectually retards it; the action of the red oxide of mercury, although evident, is much weaker; as also is that of the cyanide of mercury; while that of the protochloride of mercury is scarcely apparent.

By the double chloride of gold and sodium the action is entirely destroyed, the jelly remaining solid. The same thing occurs with the nitrate of silver, a portion of the metal being, in both cases, reduced.

The tribasic acetate of lead impedes the action of diastase, but does not completely annihilate it; the neutral acetate has scarcely any influence; while alum checks it, and the sulphate of iron totally destroys it.

#### OF THE INFLUENCE OF NEUTRAL SALTS.

The chlorides of calcium, of barium, and of strontium, and the hydrochlorate of ammonia, do not check the action of diastase on starch jelly; neither do the sulphates of potash, soda, and magnesia, or the acetates of the same bases, or the borates and phosphate of soda. By iodide of potassium, and the arseniate of potash and soda, the action is but slightly retarded.

#### OF THE INFLUENCE OF THE VEGETABLE ALKALIS, AND OTHER ORGANIC SUBSTANCES.

Strychnine, morphine, quinine, and the sulphates and hydrochlorates of morphia and of quina, give but a very feeble check to the action of diastase on starch jelly. Salicine, and all the neutral azotized matters both soluble and insoluble, are in no way prejudicial to the transformation.

#### OF THE INFLUENCE OF THE ESSENTIAL OILS, OF CREOSOTE, OF ALCOHOL, AND OF THE ETHERS.

I have ascertained the influence of the essential oils of mustard, rosemary, mint, turpentine, citron, aniseed, and cloves. In every instance the liquefaction and the saccharine formation proceeded as usual. Creosote acts like the essential oils, and alcohol and the sulphuric and acetic ethers are without influence. On the contrary, all these substances are found to completely annihilate the alcoholic fermentation. Hence we may, I think, conclude that this latter differs entirely in this important respect from that we are now treating of, as also from the benzoic and the salygenic, in being

intimately connected with the life of the globules, while these are independent of this circumstance.

#### 3. Are there any globules peculiar to the glucosic transformation?

From what has been just stated, we may already presume that the formation of these globules is not necessary for the glucosic transformation; and this opinion is confirmed by direct observation. If a limpid substance of diastase is added to starch jelly, and the diastase possesses all its energy and is in sufficient quantity, and the temperature is kept at 60 deg., the mixture becomes transformed into a transparent liquid, which deposits only a few amorphous dregs. If the action languishes during the twenty-four hours, either from the want of power of the diastase, or from a lowering of the temperature, globules of extreme tenuity may then be discovered by the aid of the microscope in the deposit among the amorphous dregs; still they are quite accidental, and have not in the slightest degree the energetic property of diastase.

Observation, therefore, leads us to conclude that, if the existence of globules is indispensable to the alcoholic fermentation, they are not necessary to the different transformations which result in the formation of glucose.

[My next paper will be devoted to the description of the functions of the Pancreas.]—TRANS.

19, Langham-place.

#### ALLEGED PAINLESS OPERATION BY MESMERISM.

By JAMES ESDAILE, M.D., Army Surgeon.

[The Indian newspapers contain several very extraordinary reports from the Physician above named—as minute and distinct in their details as they are marvellous (we had almost said incredible) in their alleged circumstances. We give a recital of the cases, omitting the author's commentaries, and at the end we shall append, from the "Zoist," two letters replying to some of these cases, the one from Dr. Mouat, a medical professor of Calcutta; the other from Dr. Webb, another professor of the same college. Our readers, if we mistake not their spirit of liberality and love of investigation, will agree with us that, under the circumstances, it would not be just to them, nor dutiful to science, nor courteous to Dr. Esdaile, to keep these statements back from the bar of professional opinion. If fabrications, it is right that Dr. Esdaile and the two Calcutta professors should bear the responsibility of publishing them; if verities, the sooner the profession is made to understand their worth the better.—ED.]

"Painless Operation. Laying open a Fistula.—April 11. Runjeet Sing, a porter, aged thirty-five, has a deep fistula in the nape of the neck, of four months' standing, that requires to be laid open for its cure; was entranced on the first trial in half-an-hour, and the part freely laid open without his feeling it.

"Removal of a Tumour.—April 12. Bogobun Doss operated on for the removal of a tumour of 30lbs. weight, on the 8th instant; was entranced to-day in the presence of Dr. Ewing and two other gentlemen, to have the stitches removed, and the wound dressed for the first time—always a distressing process. When it was over, he was removed to a clean bed, and on being awakened was astonished to find that his bed had been changed. As the greater power of endurance will, of course, include the less, your readers will have inferred this, and other practical applications of the power; but nothing should be taken for granted that can be proved by direct experiment.

"Laying open a Fistula.—April 17. Dookee Ram, aged fifty-eight, a shepherd, has had a fistulous sore on the back of his hand for six months. On going to the hospital to-day, somewhat later than usual, I found two gentlemen there, Mr. Baxter and Mr. Littlewood, and was told by the sub-assistant surgeon that this man had been entranced and operated on, about half an hour before. We went to see him, and he awoke while we were looking at him, and expressed great surprise at the altered state of his hand.

"Removal of an Excrescence.—April 20. Sumboo, a boatman, aged thirty-six, has got phimosis and a warty excrescence, which requires amputation of the part. He was easily entranced on the first trial, and the part removed without his knowledge.

"Removal of a Tumour.—April 24. Rammahun Doss, a shopkeeper, aged forty, has elephantiasis scroti. I cut off the tumour, weighing twelve pounds, in the presence of Mr. Graves, the Head Master of Hooghly College, and Mr. Brennan, Lecturer on Natural Philosophy in the same institution, and the man did not awake till after all the arteries were tied, and the parts covered with a clean sheet; the organs were all saved. He said that he awoke of his own accord, and was not in any way disturbed in his sleep. He was asked by me why he had come to the hospital? He said, 'to have his tumour removed.' When did he first see me? 'This moment on awaking.' I had found him entranced this morning, and then saw him for the first time. We asked him if he would like to have the operation done now? He said, that as he felt weak, he would like it to be done after he had got something to eat. He was now shown the mass of flesh, which he recognised as his property, but could not tell how I had got hold of it.

"Removal of a Tumour.—This case is more than usually interesting, and has some variety in its circumstances.—April 24. I left the last patient in the trance in which I found him, intending to operate on my return from Chinsurah. On the way I met a young man leading an old blind one, and saw that the former had got one of the usual tumours. I stopped them, and found that they had just come up from Calcutta about some suit in court here. I asked the young man if he wished to get rid of his annoyance, and on his answering that he did, I turned back with them to show them the hospital. I first introduced him to Bogobun Doss, the bearer from Cuttack, operated on for the same disease on the 8th of April, and who was walking about the hospital. The bearer told him his story, and showed his present condition, which the new comer was simple enough to believe. I then took him into the mesmerising room, and showed him the last patient, pulling off his cloth, that he might see the nature of his complaint, and satisfy himself that he was unconscious. He had no difficulty in believing this even (such is the perversion of man's natural senses), and I then said, that if he would lie down, and do as he was bid, I would cut both of them without giving them pain. He accordingly lay down, and in an hour I returned with Mr. Graves and Mr. Brennan, and found both of the men ready for the knife. The last operation having fatigued me, I said that I would reserve this man till tomorrow, and afford Mr. Brennan an opportunity of making some experiments upon the effects of electricity, applied in the trance. Faraday's electro-magnetic machine was put in motion, and the handles put into his hands; his arms trembled in synchrony with the continuous shocks, but his hands and face remained perfectly passive, and on adding the centre magnet to increase the strength of the shocks, the only effect produced was to extend the tremour to the whole body; his countenance never changed, and the handles had to be packed with tow to keep them in his half-open hands. The conductors were taken out of his hands, and transferred to those of his mesmeriser, a large strong man, the hospital doorkeeper, and in an instant he made the most horrible grimaces, convulsively grasped the conductors, and begged that they might be taken out of his hands, as he could not throw them away. After this, I with great difficulty awoke the man, and he was unconscious of anything having been done to him.—April 25. In the presence of Mr. Fowle, assistant magistrate, Mr. Shum, Mr. Baxter, and Mr. Razet, I removed the tumour, saving all the organs, and the man showed no more sensibility than a corpse. It was twenty minutes before the wound was all stitched up, and, when the last stitches were putting in, it was found that there was too much skin left; upon which I sliced off three inches more, to which he was quite indifferent. By this time the spectators had recovered their senses, and become convinced that he was a real man, and all agreed that it was a waste of sympathy to



## HOSPITAL REPORTS.

## MEDICAL TIMES PRIZE REPORTS

## THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

## MEDICAL CASES.

## SUBJECT—BRONCHITIS AND PHTHISIS.

CASE 1.—Jane Gardner, aged fifteen, single. Admitted May 9, 1845. Under Dr. Wilson.

Skin moist; bowels costive; catamenia have never appeared; there is urgent dyspnoea; countenance inky; she has a muco-purulent expectoration, and she is in a half-comatose state; chest resonant on percussion; gurgling rhonchus; she is reported to have had the croup when five years old, since which time she has always had cough and frequent hæmoptysis; during the last month the cough has increased. Vini rubri 3ss. 2nda quâque horâ.

Rx. Decoct. cetrar., 3j.; syrup. auranti, 3j.; tinct. camph. e., m. xij. 6tis horis.

10. Very restless during the night; cough and dyspnoea increased; hæmoptysis continues; countenance inky.

Rx. Spir. æther. s. c. m., xx.; tinct. camphoræ e. 3ss.; mist. camphoræ, 3 vij. 4tis horis.

11. Symptoms much increased. Quarter past eleven a.m., died.

## SECTIO CADAVERIS.

External Appearance.—Body well formed, and in very good condition.

Thorax.—Left lung larger than natural, and when the chest was opened it did not collapse; some slender but firm adhesions existed at the back of the chest; the whole of this lung was emphysematous, and at the back part was loaded with red frothy serum, but the tissue was still firm; the bronchial tubes, even to the minute ramifications, were filled with a thick puriform fluid, and their mucous membrane was of a dark livid colour, thickened and somewhat flattened; the right lung was somewhat smaller than the left, and united by extensive and firm adhesions to the walls of the chest. Many of the bronchial tubes of the left lung were very much dilated, especially those which belong to the lower lobe, where several of these tubes were as large as, or even larger than, the primary divisions, and passing down as large as quills even to the lowest part of the lower lobe, where they terminated in *culs-de-sac*. The tissue of the lung in the immediate neighbourhood of these dilated tubes was condensed and thickened by red hepatization of a darker colour than usual. The intermediate structure of the lung was pretty healthy, except at the back part, where it was loaded with red, frothy serum, and soft in texture. The mucous membrane of the bronchial tubes of this left lung was of a dark livid colour, thickened, softened, and covered in the principal ramifications, even to the third and fourth divisions, with a thick layer of lymph, presenting a corrugated appearance, which could easily be removed with the back of the knife. Similar appearances existed, though not in so marked a degree, in the right lung, and extended up the main divisions of the bronchi, where the effusion became less in quantity, and gradually disappeared, so that there was but little of it in the trachea, and that only in the neighbourhood of the bronchi. The mucous membrane of the trachea was of a dark red colour, and slightly thickened; the larynx was healthy; the secretion found in the various bronchial tubes, especially the dilated ones, was extremely foetid. Pericardium and heart healthy.

Abdomen.—The subperitoneal cellular tissue of the right lobe of the liver was extensively thickened, and of a white colour. The liver itself was healthy; spleen slightly adherent to the neighbouring parts, but its structure healthy. The remaining viscera were healthy.

CASE 2.—Elizabeth Pennington, aged fifty-seven, married. Admitted June 18, 1845. Under Dr. Nairne.

Tongue coated, moist; has no appetite; pulse 120, weak; urine high-coloured; has shortness of breath, and cough, with expectoration, but no hæmoptysis; has headache, and cannot sleep at

night. There is pain between the shoulders. Emp. lyttæ int. seapul.

Rx. Liq. ammon. acet., 3 iij.; spir. æther. nit., 3j.; vini ipecac. m. xxx.; mist. camphoræ, 3 vijss. 6tis horis.

Rx. Pil. colocynth. c. hyoseyam. gr. x. h.s.

19. Less pain; expectoration bronchial; tubular breathing at apex of left lung; respiration natural at posterior part of thorax; at apex of right lung there is bronchophony and loud rhonchus.

21. Breathes more easily; less headache; cough continues with expectoration, which is much thicker; makes very little water; does not sweat so much. Fish diet.

24. Less cough; still pain in head; expectoration thicker; bowels confined.

Rx. Potassæ carb., gr. x.; spir. æther. nit., 3j.; oxymel. scillæ, 3j; mist. camphoræ. 3 x. ter die.

Rx. Pil. colocynth. e. hyoseyam., gr. x., o.a.n.

26. Head very giddy; pain in chest increased by deep respiration. Cat. sinapis. thor.

28. Very nervous; pulse weak. Ordinary diet. Adde sing. haust. spir. æther. s. c. m. xj.

July 1. Complains of dimness of sight; coughs more towards morning; has more expectoration which is mostly purulent; very weak. Vini rubri 3ij.

3. Rather better. P.

5. Expectoration still purulent; coughs a good deal; is very weak.

8. Much thin watery expectoration; still a good deal of cough.

10. Complains of occasional pain in the chest; appetite bad.

Rx. Inf. rosæ c., 3 ixss.; tinct. opii, m. iij.; acid. sulph. dil., m. x.; vini ipecac., m. xx. ter die.

12. Less pain; expectoration only bronchial; gaining strength.

15. Less cough and expectoration; bowels open; still a little pain in the right side. Emp. lyttæ lat. thor. dext.

19. Complains of headache; pain in side relieved; pills do not act.

Rep. pil. colocynth. c. hyoseyam. gr. x. o.n.

22. Scarcely any cough or expectoration.

Rep. mist.

To be an out-patient.

CASE 3.—Jane Ward, aged twenty-five, servant, single. Admitted Feb. 26, 1845. Under Dr. Nairne.

Tongue slightly coated, moist; bowels open; catamenia irregular, absent four months; pulse 120; skin warm; has had a cough for several winters; coughs and spits a great deal; pain across chest much increased by coughing; breath very short; has spit up blood with the cough at different times for the last five years; has lost much flesh lately, and perspires at night. Fish diet. Emp. lyttæ pect.

Rx. Haust. salini, 3jss.; vin. ant. pot. tart. m. xxx. 6tis horis.

27. Bowels not open; cough very troublesome; blister has risen well; says that she had inflammation of the left pleura last Christmas.

March 4. Appetite good; bowels not open; cough not so troublesome; expectoration more bronchial.

Rx. Pil. colocynth c. hyoseyamo gr. x. h.s.

6. Complains of sore throat, there is no swelling; has been very sick, and complains of having globus hystericus; can only speak in a whisper. Beef-tea and arrowroot.

Rx. Haust. acid. hydroc. c. soda bis in die.

8. Complains of much pain in the throat; throat looks healthy inside; cannot take anything solid.

Emp. lyttæ laryngi.

9. Bowels not open, but the throat feels better.

10. Throat better; face flushed.

Rx. olii ricini, 3ss. stat.

Rx. Haust. morphine, o.n. To inhale warm-water vapour.

11. Pulse very weak; bowels open; face flushed; was rather sick this morning. Vini. rub. 3ij.

13. Tongue coated; complains of a nasty taste in the mouth; can swallow much better. Pil. colocynth. e. hyoseyamo, gr. x. h.s.

15. Feels better; can swallow without much difficulty; cough still very troublesome, with much expectoration. Rep. pil. o.a.n.

Rx. Haust. cetacei c. 3jss.; syrupi papav., 3j. ter die.

18. Better; less expectoration, which is now only mucons; cough relieved; only speaks in a whisper. Ordinary diet.

20. Complains of pain and sense of tightness in left side of chest and across to the other side; pain increased by pressure; hectic flush in face; expectorates much frothy mucus; breathing short. Emp. lyttæ lat. thor. sinist.

Rx. Pil. scillæ c. gr. v. ter die.

22. Pain relieved by blister; pulse 92; no pain in chest or throat; makes more water.

28. There is a sound as of bending leather to be heard in respiration between the shoulders; bowels not open. Omit. vin. Broth diet.

Rx. Pil. digitalis e. gr. v. ter in die.

Rx. Olei ricini, 3ss. statim.

25. Has more pain in right side of chest, increased by respiration; face much flushed; bowels open.

Emp. lyttæ lat. thor. dext.

29. Feels better; tongue still furred; expectoration purulent and free; pulse not so full; voice begins to return again. Ordinary diet.

April 1. Coughs less; expectoration free; respiration very imperfectly heard on the left side of chest. Rep. pil.

3. Has more pain in right side; more cough; respiration hurried. Beef-tea. Cat. sinapis lat. thor. dext.

4. Respiration performed with much difficulty; has more cough and pain in chest; pulse weak and quick.

Rx. Spir. æther. s.c., spir. æther. nit., aa. m. xxx.; mist. camphoræ, 3 xj. bis die.

Rx. Haust. morphine bis die.

Emp. lyttæ lat. thor. dext. Spir. vini gallici, 3ij. Milk diet.

The voice has almost entirely returned within the last days; she has violent perspirations which weaken her very much.

5. She became worse, and the breathing more laboured and shorter till 2 P.M. when she died.

## SECTIO CADAVERIS.

The cavity of the right pleura contained a large quantity of yellow coloured serum, mixed with a very large proportion of recently-effused lymph. The cavity of the left pleura was filled completely with thick puriform fluid, and the membrane itself was very much thickened by layers of lymph, which appeared to be vascular; a few old and slender adhesions existed at the apex of the left lung; both lungs were much condensed by the pressure of the fluid contained in the pleura, but the left much more so than the right, being driven against the spine, and coated over with a thick layer of lymph. The upper lobes of both lungs were all but free from tubercles, there being only a few miliary tubercles scattered in various parts of these lobes. The inferior lobes were thickly studded with large patches of this morbid deposit, and in one or two places were some vomicae as large as nuts. The intervening structure of the lungs, especially that of the right, was partly solidified by red hepatization, which had rendered it soft and easily lacerable; heart healthy; coagula in all the cavities very large, and for the greater part fibrinous.

Larynx.—The arytaeno-epiglottic ligaments were thickened, and the left presented in its structure a small circumscribed tumour, which, when cut into, turned out to be a small circumscribed collection of matter contained in a dense cyst; the right ligament was thickened, apparently by an effusion of lymph in its submucous cellular tissue; the mucous membrane presented a shrivelled appearance, as if it had been more expanded at one time than at present; there was no ulceration, neither was the mucous membrane of the windpipe at all affected; the abdominal viscera presented nothing remarkable.

CASE 4.—James Chillings, aged 29, carman. Admitted 18th of June, 1845. Under Dr. Nairne. Skin cool; tongue white and moist; complains of thirst; appetite bad; bowels confined; urine free and clear; pulse 130; has difficulty of breathing



and a cough, with hæmoptysis; has beating of the heart; sleeps well; has fistula in ano; and has been troubled with cough and difficulty of breathing for twelve months; he has anasarca of the lower extremities, which first appeared two months ago, at which time he says that he also had an attack of pleurisy; urine albuminous.

R. Pil. hydrarg., pil. colocynth c. hyoseyamo, aa. gr. v. h.n.; laust. sennæ, ʒjss. cras mane.

21. Coughs less; legs feel very cold; countenance ink.

R. H. potassæ nitratis, ʒ xss.; spir. æther nit., ʒj.; vini ipec., m. x. 6tis horis.

24. Coughs much; more pain in left side, and tightness across the chest; less swelling of legs. Emp. lyttæ lat. thor. sinist.

26. Pain in chest easier, but still complains of pain in left side; coughs more; expectoration mucous.

Rep. emp. lyttæ lat. thor. sinist.

28. No pain in side; less cough; legs still swollen; makes less water; bowels open, very loose. Ordinary diet. Omit. mist.

R. Mist. oxymell. scillæ, ʒj. 6tis horis.

30. Bowels still relaxed; tongue dry, red at tip, furred at back part; pulse 100, very weak.

R. Mist. cretæ, ʒss.; spir. æther. nit., ʒj.; tinct. opii, m. v.; tinct. catechu, ʒj.; mist. camphoræ, ʒvj. ter die.

June 1. Better; less purged; pulse very feeble. Omit. tinct. catechu.

3. Tongue red and dry; has great thirst; hoarseness of voice; bowels not relaxed. Milk diet.

4. Complaints of sore throat; tongue dry and red; mouth very much parched; difficulty of swallowing; pulse 96, small and weak; bowels relaxed; tonsils very red, but not swollen. Arrow-root and milk. Emp. lyttæ gutturi. H. salini c. tinct. opii, m. vj. ter die.

5. Bowels loose, but not so much relaxed; feels easier; tongue moister; has constant hiccup; coughs a little.

R. Spirit. æther. s. c. m. xx.; liq. ammon. acet., ʒij.; tinct. opii, m. vj.; mist. camphoræ, ʒviijss.

6. Wandered a great deal in the night; bowels very much relaxed; makes very little water; pulse very weak and frequent; breathing difficult. Spir. genervæ, ʒij. Enema commune.

7. Bowels have not acted since the injection; appears to be sinking rapidly.

8. Died at ten A.M.

#### SECTIO CADAVERIS.

*Pharynx and Larynx.*—The tonsils and mucous membrane lining the pharynx are of a dark livid colour, and in many places covered with recently-effused lymph in patches. These diseased appearances ceased abruptly at the commencement of the œsophagus. No disease whatever existed about the larynx.

*Thorax.*—Old and extensive adhesions existed on both sides of the chest, and both lungs were thickly studded with tubercles and vomica, which were more plentiful in the left than the right lung; the intervening structure of these organs was extensively congested. The cavities of the heart were dilated and vascular; its substance was remarkably flaccid and soft.

*Abdomen.*—The cavity of the peritoneum contained a quantity of puriform fluid, mixed with flakes of recently-effused lymph, large patches of which were found on the upper surface of the liver. Several tubercular ulcerations, with tubercles in the neighbourhood, were found in the lower part of the small intestine, but the large intestine was free from disease. Both kidneys were much larger than natural, both perfectly smooth on their surfaces, and their cortical structure presented a well-marked example of mottled degeneration. The other viscera were healthy.

#### PHTHISIS AND BRONCHITIS.

There is often very great difficulty in forming a correct diagnosis with regard to true phthisis pulmonalis, or the deposition of tubercular matter in the lungs.

The disease with which this is most likely to be confounded is bronchitis, and in the first stage of phthisis the symptoms are very similar to this affection; we have in both a cough, more or less tightness of the chest, and pain, and on applying

the stethoscope we, perhaps, find the voice proceeds at once through the tube of the instrument and strikes upon the ear, producing that modification of bronchophony called pectoriloquy: this symptom might be considered decisive by some, but in truth it is very fallacious; we meet with it in both complaints, but from very different causes.

In phthisis it indicates the formation of a vomica, a cavity caused by the softening and suppuration of tubercles, the matter having been discharged into the bronchi and expectorated; in this case it is a truly formidable symptom.

In bronchitis we also meet with it, but then, instead of indicating the formation of a vomica, it is caused by the enlargement of a bronchial tube, and is not a fatal symptom. The symptoms, however, in bronchitis are often very severe: they are cough, tightness of chest, and pain; expectoration of mucus or muco-purulent matter, sometimes striated with blood; there may be also a good deal of fever, quick pulse, thirst, and sweating at night; there is often pectoriloquy; the patient may be much emaciated, appearing to be in the last stage of consumption. This disease may sometimes proceed to a fatal termination, and we have an exceedingly well-marked example of it in Jane Gardner (case 1). She had all the external symptoms of phthisis; the countenance was dusky, evidently from an imperfect aeration of the blood in its passage through the lungs; there was a purulent expectoration, and the dyspnœa was excessive. On examining the body after death, not a single tubercle was found in either lung; it was a pure case of bronchitis, but of a most severe and protracted nature; the bronchial tubes being affected even to their remotest ramifications. Here, then, is a fatal case, which, by the morbid appearances, well illustrates the nature of the complaint when allowed to proceed unchecked. But cases of bronchitis are not generally fatal, as I have said before; we often meet many of the symptoms of phthisis in this complaint, and if we saw no more of the case we might be led to suppose that such was its nature; but, when we have the opportunity of watching its future progress, we observe one great diagnostic mark, viz., that all these symptoms yield rapidly to proper treatment, and, if uncombined with any other malady, the patient is restored to a state of perfect health; and these are cases in which the patients are said to have been cured of phthisis. There is a good example of this in the case of Elizabeth Pennington (case 2). She had all the symptoms of phthisis on admission, but, from the easy manner in which they yielded to treatment, we may reasonably suppose that she was only labouring under an attack of bronchitis, and not of phthisis. In true phthisis the symptoms may, perhaps, be not so severe, but they proceed steadily to a fatal termination, and yield to no treatment. I will not say that phthisis is invariably fatal, for I believe that in some rare cases a spontaneous cure is sometimes effected; suppuration may occur around the tubercles; they are thrown off by expectoration; the cavity thus formed is lined with lymph, and, if tubercles exist in no other part of the lungs, the disease may then terminate. Such cases are rare, but we see in them most beautiful examples of the *vis medicatrix nature*.

There are certain symptoms which assist us materially in forming a correct diagnosis between bronchitis and phthisis; generally in bronchitis there is no spitting of blood; there was no hæmoptysis in the case of Elizabeth Pennington. In phthisis, hæmoptysis is generally a prominent symptom, and on percussion we generally find a dulness under the clavicle, well marked on comparing the two sides of the chest; and this is of great assistance to us, for in ninety-nine cases out of a hundred we always find that the tubercular deposits occur at the upper part of the lungs first, and therefore, when we meet with dulness on percussion in the upper part of the chest, it most likely depends upon the presence of tubercles. There are, moreover, generally in the left side of the chest bronchial breathing, bronchophony, a certain degree of crepitation; and, if these be combined with the other symptoms, we may be tolerably sure that it is phthisis.

The case of Jane Ward (case 3), is rather re-

markable; for here we have an example of the disease commencing in the lower lobes of the lungs, the upper lobes being all but free from tubercles, with the exception of a few miliary tubercles scattered in various parts. Such a case as this, however, is rare, but it shows that we may be sometimes misled by percussio, for in this case there was no reason why the upper part of the chest on both sides should not have emitted a perfectly natural sound. We do not, however, always meet with dulness on percussio, though such is generally the case; in fact, if we try percussio just over a large vomica, we find that it emits a perfectly clear sound; but if we find that, on the application of the stethoscope to this spot, we discover bronchophony or pectoriloquy, and if this be not immediately over a large bronchial tube, we can have very little doubt as to the nature of the case. Double pleurisy is exceedingly rare, unless it occurs in patients having tubercles in their lungs; and it should therefore always be looked upon with suspicion. We should not always deplete in pleurisy, for in some cases where the patients have been lowered previously, either by profligacy or want of proper nourishment, they may die very speedily under such treatment, their vital powers being already worn out, and so unable to bear the depletion; or they may have delirium from anæmia of the brain. As a general rule, a certain degree of depletion is necessary; but where we meet with such patients as I have here just mentioned, we cannot deplete—nay, in some cases it is even necessary to give stimulants.

If the pleurisy proceeds to the effusion of fluid, and the case be left to nature, the fluid may be got rid of in three different ways. If it is simple serum it may be absorbed, or a communication may take place between the cavity of the pleura and a bronchial tube, and the matter may be thus expectorated; or again, it may make its way outwards through the integuments between the ribs. If the fluid be purulent, it must be got rid of in one of the last-mentioned ways, as it cannot be absorbed. It is often necessary in these cases to assist nature and let out the matter, but they frequently do very well when left to themselves. In these cases no respiration is heard on the side affected, but after the discharge of the fluid a very considerable portion of the lung often recovers itself. This process generally takes some time before it is completed, and sometimes we may give diuretics and expectorants, but generally all that is required is to support the patient.

In some cases of phthisis the patient has tenderness of the abdomen, in fact, he labours under a kind of chronic peritonitis, dependent on the formation of tubercles in the peritoneum, or there may be diarrhœa caused by the deposition of tubercles in the mucous membrane of the intestines. We have a very good illustration of this in James Chillings (case 4). There we meet with a patient in the last stage of phthisis, who, in addition to the chest symptoms, had diarrhœa; and, on examination of the body after death, we found that he had tubercles deposited in the mucous membrane of the small intestines. Such combinations as these are not uncommon; but Louis has observed that tubercles never occur in any organ of the body after the age of fifteen, except in cases in which they also exist in the lungs; and this we almost always find to be the case. There is another symptom worthy of observation in this case, and this is the fistula in ano; we often meet with it in cases of phthisis; and where a patient presents himself to a surgeon with fistula, it becomes a matter of great importance to ascertain whether he has symptoms of phthisis; for I believe that in many cases the fistula acts in some degree as a species of seton, and if it be healed, the phthisical symptoms at once develop themselves, and run a rapid course.

But to return to the distinction between phthisis and bronchitis. When we meet with the symptoms of pleurisy in conjunction with others, or if this be double, that is, on both sides of the chest, it is a very strong proof in favour of the complaint being phthisis. Generally speaking, in bronchitis we have no unequivocal physical symptoms of phthisis, there is no spitting of blood, and no great loss of



ground of *conscientious duty*—that which neither prompts the master to serve the pupil merely that himself may be served again; nor the pupil to obey his superior that he in return may be a gainer; but that better precept, the *vera vox ab imo pectore*, which is suggestive of good conduct for *honour's sake*! This is the grand principle which we would emphatically impress upon the minds of all to whom our discourse relates.

"The fear o' hell 's a hangman's whip  
To haud the wretch in order;  
But where you feel your honour grip,  
Let that aye be your border.  
"Its slightest touches instant pause—  
Debar a' side pretences—  
And resolutely keep its laws,  
Uncaring consequences."

Improved and improving, however, as the system of medical education is, on the apprenticeship plan, we gladly anticipate the time when this will be abolished altogether. It will be to the advantage of all parties: to the master, for he will have to provide competent assistants who will do more work, and better, than young and untutored youths; to the assistant, for his services will be in greater demand, and he will get higher pay for them (a novelty very much needed); and to the future practitioner, who, in the wards of a hospital, in its dissecting-room, its class-room, and its dispensary, will obtain, during his pupillage, far better and far readier instruction than can ever be gained on the old plan. To compare the advantages of hospital with private practice, as a course of instruction, is altogether out of the question. There is no comparison whatever between them as regards the facilities for forming correct diagnoses, for estimating minute signs and symptoms, for watching the immediate and remote effects of medicines, for scrutinizing pathological phenomena, and for obtaining a knowledge of morbid anatomy. These things are the great groundwork upon which alone success or certainty in practice can be hoped to be built; and in no place can they be gathered so easily or so well as in an hospital superintended by a competent medical staff! There the student daily reads the lesson of his after life, guided to a correct understanding of it by the sage admonitions of those whose experience qualifies them for tutorship.

We are glad to see this plan beginning to be extensively pursued—we hail the arrival of the time when it will be the *only* plan of professional education in this country! The majority of students who now throng our hospitals, colleges, and universities, come relieved from the tedious drudgery of apprenticeship, and prepared to acquire, in six months, all the pharmaceutical knowledge they obtained under the old system in as many years. Formerly, a lad was taught, mechanically, to read a prescription, and then to bundle together its medicinal items into pill-boxes, gallipots, and bottles, knowing nothing of the substances he classed together, except by name, and not a whit the wiser for all his trouble. Now, students are first taught the natures and properties of drugs; then the diseases in which they are serviceable; and then they are shown how they may be compounded, so as to be made fit for administration. In the old scheme pupils began, to use a vulgar

phrase, at the wrong end, and were consequently subjected to a most tedious and tiresome march in the pathways of knowledge. This was because of the ignorant notion that the pursuits of pharmacy required years for their comprehension—mechanical processes, that six months will cover, and easily! We congratulate those of our young friends who are enjoying one of the fruits of a hoped-for reform amongst us. They have many advantages of which their predecessors—slaves of custom—would have been glad! We hope these advantages will not be neglected, but used in all faithfulness, for the doing of general good, and the securing of personal wealth and welfare.

October, with its active, responsible pursuits, has fairly commenced, as we said, *in limine*, and many a future respectability, many a reputation, hangs thereon! It is the duty of every student to estimate himself aright, and, though a beginner, to weigh well the importance of what he *will be*. That he may be what he ought, *hereafter*, let him look well to himself *now*! This is the only certainty!

"Improve the present moment; all beside  
Is like a bubble on the torrent's tide."

It is our fervent wish, that those of our young friends who are now setting out in the career of life, and whom our admonitions have not before reached, may pass through a happy and honourable studentship, and be, in many years to come, privileged to look back upon this season with the pleasant reflection that it was an era in the best history of their lives!

### MISCELLANEOUS CORRESPONDENCE.

MR. THOMAS WAKLEY AND HIS *DISTANT* CORRESPONDENT IN THE "LANCET"—HIS PRIVATE SECRETARY—"MR. GEO. SMITH BRENT."

[To the Editor of the Medical Times.]

SIR,—A letter appeared in the "Lancet" of Saturday last, carefully concocted, apparently under a superior's surveillance, by Mr. Wakley's present sub-editor and private secretary, George Smith Brent, and addressed to the "Lancet" as though coming from a perfectly disinterested and independent party; the purport of which letter was to impress the junior students now arriving in town with the idea that the aforesaid "George Smith Brent"—an indifferent stranger to Mr. Wakley, and an accidental correspondent—had actually discovered that mine was a "*fetitious*" school, and my present "local habitation" a mystery, and that, therefore, I am committing a gross fraud upon the profession.

Now, Sir, the fact is, that I have this session spared no expense in advertising and distributing "circulars" in order to give notice to the whole of the profession, and public at large, of the removal of my school and of my present residence, and which latter is most distinctly specified in both, and most conspicuously printed in the circulars. He admits having received (in common with the rest of the members of the profession) one of these "circulars" stating my removal from 15, Charlotte-street (now Bloomsbury-street) to 28, Bedford-square, which said notice of removal distinctly specifies that for admission cards, prospectuses, and all particulars regarding the school, applications must be made to me at 28, Bed-

ford-square—*ergo*—what! does this *uninterested* observer apply to Mr. Dermott at the place of reference, 28, Bedford-square, which, by-the-by, is in the immediate neighbourhood of Mr. Brent's professed "habitation" and that of his master? No, but he goes at once to the place where he is informed neither myself nor school is any longer to be found, and then deliberately *publishes* that he has made this discovery—that I am *really* not to be found at 15, Charlotte-street, Bloomsbury, and that, with all his sub-editorial sagacity, he is not able to gratify his readers by "solving the mystery."

In order to make the misrepresentation as glaring as possible, he says, "On applying at 15, Bloomsbury-street, I was referred to a printed board, on which I read '*Charlotte-street School of Medicine removed.*'" Now, he has not stated one half the words which he must have seen on the board, for the same board contains the following words in large characters—"For particulars apply to Mr. Dermott, 28, Bedford-square."

The name of "Charlotte-street School of Medicine" is merely retained as a point of necessity, in order to preserve its identity in the minds of the public, inasmuch as it has been known and extensively advertised by that name for the last fourteen or fifteen years—in fact ever since its removal from the Westminster Dispensary. Charlotte-street, in consequence of the metropolitan improvements, no longer exists by that name, but is now called Bloomsbury-street.

He states, "that the assumption of a false address, in a circular otherwise calculated to mislead the unwary, should be held up to public reprehension for the benefit of medical students, who may this season arrive in London for the first time. I can fully understand why you have excluded the advertisements of the (so called) 'Charlotte-street School of Medicine' from your columns." In reply to this deliberate and gross misrepresentation, in which the editor and his sub evidently join, I merely state, Wakley's ridiculous prohibition was perpetrated in 1844, immediately after my castigation regarding his extraordinary conduct (so unsuccessful in the issue) in the "Medical Protection Society," and my removal was in December, 1845. With regard to the terrible punishment of this laughable prohibition, I shall have the happiness of proving to the medical profession that an individual depending upon his integrity and upon truth—ay, even a lecturer—can *now* do well without having recourse to so foul a vehicle as an advertising medium, having, at the same time, the honourable distinction and the full advantage withal of the plenitude of Mr. Wakley's abuse.

Your obedient servant,

Oct. 7, 1846.

G. D. DERMOTT.

DR. DICKSON AND DR. ASHBURNER.

"Nothing can more forcibly show the value of an article than attempts to steal it. Would a pickpocket risk detection for an empty purse?"

[To the Editor of the Medical Times.]

SIR,—My attention was lately drawn to a paper in the last July number of a periodical called "The Zoist," by a gentleman who, when he showed it to me, unhesitatingly pronounced it a "wholesale piracy of the chrono-thermal system." The article in question is headed "On a Theory of Sleep, by Dr. Ashburner." It might with more justice be entitled "On a Theory of Life, by Dr. Ashburner": for, though the writer commences with a statement that the conditions of sleep and vigilance are susceptible of being referred to the "agencies of attraction and repulsion," he soon



diverges into a field of speculation so extensive that his theory of sleep becomes the minor of his more enlarged propositions. "It will easily be perceived" (he says) "that the agencies of attraction and repulsion have a very wide range in explaining difficult questions touching life. The part which these forces play in the formation and in the cure of disease leads to wide speculation"; and he starts the conjecture "that at some future day the explanation of arterial energy and venous congestion—the two great *sources* [elements?], of inflammation and of fever—will rest upon the same grounds as the production of sleep and vigilance." "In reflecting upon the extensive relations of this subject I was led" (he says) "to conclude that it had a very close relation to the philosophy of mind. The disagreeable, the unpleasant, and the unamiable feelings of our nature are found to be the results of a condition of the mind influenced by repulsive agencies." And here Dr. Ashburner calls Mr. Faraday to his aid, begging him to exert his vast ingenuity to "discover" how far certain powers "are in operation in determining the presence of attractive and repulsive agencies on the human system," as "his deeply-interesting researches tend to the discovery of more than analogous states of electric action between the influences productive of motives to mental operation and the powers which actuate the interminable combinations of matter." Turn, Mr. Editor, to the accompanying copy of "The Fallacies of the Faculty, and the Principles of the Chrono-thermal System of Medicine," and mark the coincidence—the absolute identity rather—of the doctrines there propounded with the theories and other leading ideas of this Dr. Ashburner, and you will find these ideas, these theories, stated there,—not as Dr. Ashburner has stated them, *conjecturally*, but proved by demonstrative fact and argument to be a positive CERTAINTY—a certainty of years gone by, not a conjecture for the future! The electric nature of mental and medicinal agency, also, which, in this blessed year of grace '46, Dr. Ashburner for the first time calls upon Mr. Faraday to "discover"—to which, so recently as July last, he implores that philosopher to turn as to a land of hope for his future exploration—you will find completely explored and detailed in that volume. First published in 1836, in "The Fallacy of Physic as Taught in the Schools," these identical doctrines have successively appeared in the "Unity of Disease" and the "Fallacies of the Faculty,"—the last of which works has run through five English editions, has been translated on the Continent, and within the past year has been reprinted in America!

What has taken a volume to demonstrate cannot possibly be transferred to your pages as a whole; but a very few passages will, nevertheless, serve to show how long, how fully, and how fairly, I have anticipated every part of the leading matter of Dr. Ashburner's paper. The following will be found at pages 150 and 151 of the fifth edition of "Fallacies of the Faculty":—"A piece of amber or sealing-wax, when rubbed, first attracts silk, then repels it; producing alternate motion altogether independent of mechanics. Though not life, this phenomenon is at least a type of it, for the organic and other motions of an organism termed *life*, even in the highest grade of animals, when analyzed will be found to be the mere periodic repetition of alternate attraction and repulsion. What are the successive conversion of the food into the blood, of the blood into the matter of tissue and secretion, but so many instances of this proposition? What the alternate inspiration and expiration of the lungs, the equally alternate contraction and dilatation of the heart, sleep and wakefulness, love and hate, ambition and wordly disgust, but so many modifications or effects of attractive and repulsive influences?" "Life, then, is electricity in its highest sense, even as the attraction of gravitation is electricity in its lowest sense." "Galvanism and electricity, strictly so called, embrace all the subordinate links, while LIFE, or vital electricity, comprehends the whole."

"Is electricity, then, the source of medicinal agency—the source of power by which opium and arsenic kill and cure?" If, as in the case of the magnetic phenomena, it can produce, take away, and reverse the *polarity* or motive power of the needle, so also can it give, take away, or reverse every one of the particular functional motions of the various parts of the living body to which it may, under particular circumstances, be applied. It has caused palsy and cured it also; but has not strychnia done the same? In common with arsenic, it has made the bravest and stoutest shake in every limb, and, like the same agent, it has cured the ague. If electricity has set one man to sleep and kept another wakeful, has not opium done the same? \* \* \* Do we not prove, then, beyond the possibility of question, that the action of these medicinal substances is purely electrical?" After explaining the elective affinity by which different medicines influence different portions of the body, the passage concludes as follows:—"Their ultimate agency depends on attraction and repulsion. Here, then, gentlemen, you have the most satisfactory explanation of an infinity of facts which, from their supposed confliction, have, up to this hour (1839!) puzzled every teacher and professor that ever endeavoured to grapple with the subject. The merit of this explanation I exclusively claim, and I state my right to it thus distinctly, that no F.R.S.—no Queen's physician extraordinary, or other great official—may hereafter have any excuse for attempting to snatch it from me—whether through ignorance or forgetfulness of my name or writings he venture to PREDICT its future discovery, or deal it out bit by bit to his readers in the equally novel shape of question and suggestion. Yes, gentlemen, I exclusively claim the ELECTRICAL DOCTRINE of medical agency as mine—a doctrine which affords an easy solution of the greater number of difficulties with which our art has been surrounded. By following out its principles, you see at once why colchicum, mercury, and turpentine can all three cause and cure rheumatism—why lead can produce and cure salivation—why musk may excite and stop palpitation of the heart—why the fevers of puberty, pregnancy, and small-pox have each cured and caused every species of disorder incident to the respective subjects of them, and why the *passions* have done the same. Now, what better proof could you have of the real nature of the passions than this? Like opium and quinine, every one of the passions has a double electrical agency."—Pp. 160, 161.

Need I quote more to show the identity of the matter of Dr. Ashburner's paper and the long-prior matter of my own writings? Yet all these various subjects Dr. Ashburner tells us were suggested to him by *mesmerism*. Not by "The Fallacies of the Faculty," he assures me, for never once had he had the book in his hands! No: recent "facts in mesmerism" suggested for the first time the theories of his paper of July last, 1846! Hitherto we have only had cases of people who could mesmerically tell the contents of a book by the touch. Here we have a *clairvoyant* actually giving out as his own the contents of a volume he never touched at all. Wonderful mesmerism—wonderful *clairvoyance*! For such, Mr. Editor, decidedly is the fact—the FACT by a MESMERISER!

Your very obedient servant,

S. DICKSON.

Bolton-street, Sept. 15.

#### DR. FORBES AND HYDROPATHY.

[To the Editor of the Medical Times.]

SIR,—I cannot allow a week to elapse without requesting you to "demonstrate" the strange proceedings of the editor of the "British and Foreign Medical Review," and especially his article on hydrophaty, in the last number of that journal. The antidote should be administered as soon as possible after the poison has been given. It seems, Sir, that Dr. Forbes (on the principle *experto Roberto credo*) being sceptical as to the value of scientific medical treatment, is, like all unbelievers in established opinions, ready and willing

to pin his faith to the back of any or every new theory that may be broached, the wilder and more dangerous the better. Now, Sir, this would be all very well, and there would be nobody, I fancy, to quarrel with Dr. Forbes's unbelief, if he would only keep his new views to himself till he got a patient to practise them on—unless some happy accident invited him to treat her Majesty's household on homœopathic principles, or Prince Albert with the wet blanket; but when in his public capacity, as the avowed editor of the "British and Foreign Medical Review"—a journal that has enjoyed a fair reputation—Dr. Forbes comes forth as the undisguised champion of hydrophaty, the subject becomes a serious one. Your readers, Sir, perhaps, may think that I have misunderstood Dr. Forbes's article on the "cold-water death"; to prove my position I quote his own words, and leave them to judge for themselves. He says—

"Accordingly we think it not unlikely that some of our brethren, and those even of the most estimable, may regard our present article as a departure from what is medically proper, and will pronounce us almost worthy to have the severe sentence of 'water doctor' passed against us." Again, "If it shall appear, however, as we believe it will, on further examination, that the external application of cold water is capable of being beneficially applied, in the cure of diseases, in modes of greater efficacy, and to a much greater extent, than has been hitherto practised by medical men, there remains only one course for the profession to pursue, viz.:—to adopt the improvements [his own italics], if such they are, regardless of their origin and their past and present relations."

What will the profession think of the following sentence?—"Not merely hydrophaty but even mesmerism, yea stark-naked and rampant quackery itself, may, in this sense, be a welcome knocker at the gate of physic."

I would, Mr. Editor, that "stark-naked and rampant quackery" knocked at the gate of physic is no other sense than as an improvement; it would be well for science and better for suffering humanity. Again, Dr. Forbes says—"Some of our views we are sure they (the profession) must adopt, particularly this:—that cold water applied in the manner of the hydrophatists is a powerful modifier of the human body, both in health and disease, and, when weighed in the therapeutic balance with other remedies, merits, at least, a fair trial in legitimate practice." That cold water applied in the manner of the hydrophatists is a powerful modifier, &c., no one, I am sure, will say, who remembers the case of Sir Francis Burdett, and the very recent and most atrocious one of poor Dresser, who died at Dr. Ellis's hydrophatic establishment, as recorded in your journal. The other proposition in the same sentence, viz., that the profession must adopt especially this view of Dr. Forbes', "that cold water, used in the manner of the hydrophatists, merits at least a fair trial in legitimate practice," I trust, for the sake of humanity, our profession will repudiate.

But let us go on a little further, Sir, and see what Dr. Forbes considers a "fair trial" of the "cold-water death." He says—"It will be an after consideration in what manner and under what circumstances this trial can best be made. \* \* \* We ourselves believe that distinct bathing establishments will still be found best for giving full effect to the hydrophatic system. \* \* \* A hydrophatic establishment should be, simply, a great bathing establishment, or *water hospital*; and should contain the means of using water in all its medicinal forms, hot as well as cold, in the form of vapour as well as liquid, medicated as well as pure. In such an hospital, although drugs would doubtless be but in slight (!) requisition, it would be contrary to all rational proceedings to exclude their use entirely." A few lines further on he adds, "they [drugs] would, for the most part, be dispensed with at the commencement of the treatment at least; but no unprejudiced and competent observer can assert that drugs should be entirely banished from the treat-



ment of any case at all times." The water companies will, I fear, raise the price of the pure element when they hear the learned physician's opinion of its value, and that it is to supersede the doctor's bill. But, to be serious, Sir, all hospitals at the present day contain the means of using water as an external application in all its various forms: hot and cold, pure and medicated, tepid, shower, sponge, vapour, and douche baths are among the daily prescriptions of the modern medical practitioner. The external application of water has attained the rank to which it is entitled as a therapeutic agent, and is placed in the list of our ordinary remedies. Carried further, the use of water becomes quackery, and is no longer within the province of a scientific physician. Dr. Forbes admits that drugs should be in slight (!) though "*but*" in slight requisition! If this be not rampant and stark naked quackery, Mr. Editor, I should like the learned doctor to tell me what is?

What, Sir, is the difference between legitimate medicine and quackery? The physician and the quack both use the same drugs—the difference is in their application. The scientific physician modifies and combines his remedies to suit the emergencies of the case he is treating; the ignorant quack, unconscious of the changes produced by disease, or the indications of treatment they point out, blunders blindly on ordering his universal panacea in all cases, under all circumstances, and to the exclusion of all other remedies. Precisely so is it with the so-called system of hydropathy. I maintain that all that is beneficial in that system has been known to the profession for years, and has made way in professional estimation with the advance of physiology and the knowledge of the functions of the skin, until it has reached its present general and wide application, both in public and private practice. Water is accepted by physicians as a valuable item of the *materia medica*, and, as such, is prescribed in appropriate cases, in common with every other remedy. Such use, however, is widely different from the abuse of the remedy in the hydropathic system of treatment, of the dangers of which we have, even in England, where it is by no means extensively used, already had such fatal proofs; and it is with regret and sorrow at the degradation of our common profession, that I see Dr. Forbes falling into the fatal error of giving such nefarious quackery the support which attaches to his position.

But I must go further, Sir, even at the risk of tiring your patience and that of your readers. I must notice the plan on which the article on hydropathy in the current number of the "*British and Foreign Medical Review*" has been written. Instead of seeking the truth of the alleged facts, and inquiring into the credibility of their promoters, Dr. Forbes has preferred to assume their correctness without hesitation; and here again I must beg to encroach on your space by a quotation. Dr. Forbes says, after describing Priessnitz's system, "How are we now to proceed, in order to arrive at a just appreciation of the value of the means thus briefly enumerated? The more usual course would be to enter into an examination of the practical results, as published by hydropathic writers. But in the present inquiry this plan would scarcely answer; for the means employed are so strange, so much at variance with those by which disease is commonly treated, and not a few of the reporters are so little entitled to claim credit for even the capacity to report medical results truly, that the greater part of our readers would disbelieve the alleged facts, rather than admit the principles they would carry with them." Dr. Forbes then admits that his readers would not believe the facts when placed before them, on the authority of the authors; and, therefore, *he* judges for the profession, and assumes their being sufficiently correct to found his superstructure of reasoning on. Speaking of the cases to which hydropathists have applied their remedy, the doctor says—

"They have administered it to the young and the old, the weak, the bilious, the gouty, the scro-

fulous, the dyspeptic, and the paralytic. Neither mucous membrane nor mesenteric glands, infantile weakness nor senile decrepitude, have stood in their way. To almost all cases, all ages, and all constitutions, their method has been applied. Unless it can be shown that this all but universal administration of the system has produced serious evils, we are actually driven to admit that it is in the same proportion safe. And we are bound to admit—though we have known some instances where the practice has been seriously injurious, and have heard of others of a similar kind—that the proportion of bad consequences has not appeared to us greater than in the ordinary modes of treating similar diseases. The practice of the hydropathists is so open, and their disciples so numerous, that the innocence of their proceedings may be said to be established by the absence of evidence to the contrary. We cannot enter any circle of society without encountering some follower of this method, ready to narrate a series of *psychrolousian* miracles, prepared to defend, and zealous to applaud the Preissnitzian practice; but few or none come forward with satisfactory evidence of anything like general mischief having resulted from its general practice. Judgment must, therefore, be entered by default against its opponents, and hydropathy is entitled to the verdict of harmlessness, since cause has never been shown to the contrary." Dr. Forbes, of course, omits all mention of the cases I have before recalled to your notice.

But what, I would ask, Sir, can we expect from a distinguished member of the medical profession—a physician in ordinary to her Majesty's household—a physician extraordinary to Prince Albert, when, in his capacity of editor of a medical journal (instead of supporting the honour and dignity of his calling), he writes, or permits to be written under the sanction of his name, and sends forth to the public, with the influence naturally derived from his high position, such a sentence as the following?—"A common antibilious pill, retailed for a penny by a druggist, or a patented nostrum of Cockle or Morrison, will generally do as well as the most elaborate prescription." I blush, Sir, for the credit of our order!

Is it, Sir, I would ask, a matter of surprise, when we consider that Dr. Forbes is one of those who possess influence with parties in power, that the medical attendants of the people—who in their daily experience disprove such doctrines as the above—should be systematically degraded and insulted?

I remain, Sir, your obedient servant,  
AN OLD PRACTITIONER.

#### PRIVATE SCHOOLS OF MEDICINE.

MR. EDITOR,—Your two contemporaries, the *Lancet* and *Gazette*, in their advice to students, seem determined to write down the small schools of medicine, or, as they express themselves, "the schools unconnected with hospitals." It seems remarkable to me that a medical journal professing to be extra-liberal—to be the sworn enemy of prejudice and faction and all that harbours them—should take such a course. Ardently wishing, as I do, for the rapid advancement of our art to give us more power over disease, and believing that prejudice and faction and monopoly tend vastly to obstruct our onward march, it is my fervent hope that the time will never arrive when there will not be small medical schools unconnected with hospitals in this metropolis. Not only so, but I hope the time will never arrive when there will not be some schools in London, of emolument so poor that a lectureship in them will not be worth the attention of established teachers. If we look at the various great schools and hospitals, and mark who are the most eminent men in each, we invariably find that they are those who have commenced their career at some of the minor schools. If the minor schools had not been open to them, and readily accessible as theatres for the trial and display of their powers in their youth, these men would never have obtained the opportunities of improving our art which the practice of large hospitals affords, or would

have obtained them so late in life that their energies would have been diminished by age, and the time left them would have been so short as not to be available. "True 'tis, 'tis pity, pity 'tis, 'tis true," those who enjoy pre-eminence in physic—in whose hands the bringing forward of young men in great schools must rest—usually prefer omitting to advance those whose promising talents disturb their jealousy; ordinary or low powers are much more comfortable to them, and much more eligible for favour. Talent must be forced upon them from without. Am I not right, then, in hoping that opportunities for genius to solicit appreciation may never be wanting? Is it not a just cause of anxiety that the way to brilliant opportunities may be shut except to those who are incapable of using them to the advantage of our art? These I know are no arguments for students, but they are pleadings in excuse of my troubling you with this letter.

Your contemporaries urge that students should choose a school with a hospital, in order to avoid the inconvenience of running through the streets from the dissecting-room to the hospital. I hope every medical student would have decency enough towards the poor in the hospitals, to take off his apron and sleeves, wash his hands, change his coat, and comb his hair, after dissecting, before he presents himself at the bedside. He is fit to be seen in the streets, or he is not fit to be seen in a hospital; and a run of a few hundred yards or a quarter or half a mile, I should think, would be an agreeable stretching of his legs, after having been cramped over his dissection. There is one small school, at least, in London, the distance from which to the nearest hospital is rather less than that from one of the largest schools to its hospital. They urge, also, that it is beneficial that the student should see the practice of those same physicians and surgeons whose lectures he hears. I rather agree with a popular notion, that the more a man hears and sees of different opinions, the more he gets free from prejudice, and the more likely he is to exercise his own reasoning faculties. When a man has been educated exclusively in a certain set of doctrines, taught as medical doctrines—which are often of very doubtful truth, and are taught with the greatest positiveness, especially by men advanced in years—his mind suffers an intellectual thralldom, and he hardly dares to think for himself. Now, Sir, the medical profession requires that all its members should use their best and most unprejudiced reasoning powers. In a small school which depends upon its scientific reputation alone for its success, the teachers are more likely to be anxious for the advancement of their pupils, that they may pass their examinations with credit to their school. In a small school, for one of their pupils to be plucked is felt as a severe blow by all the teachers. A school need not necessarily have any connection with a hospital; it ought to be near one, undoubtedly, but that is all.

Knowing, Mr. Editor, your genuine liberality—knowing how powerless all that is meretricious is in influencing your opinions—I address these observations to you with confidence in your sympathy. I do not want to praise the small schools for excellencies which they do not possess. I want to defend them from injustice, by asserting that they have excellencies peculiar to themselves, which is all that can be said in favour of large schools. It is for the student to judge which of these peculiarities best suits his peculiar circumstances, habits, or turn of mind. To write down small schools does no good to medical students, and infinite prejudice to the advance of medical art.

I am, Sir, your obedient servant,  
VERITATEM PETO.

We have much pleasure in announcing the appointment of our talented correspondent, Dr. Samuel Wright—so well known to the readers of the *Medical Times* by his valuable investigations into the pathology of expectoration—to the office of Physician to the Queen's Hospital, Birmingham, vacant by the resignation of Dr. Sandys. Than Dr. Wright, we are sure, none could fill a hospital appointment with greater advantage to the patients or more credit to the Institution.



## GOSSIP OF THE WEEK.

• **WAR-OFFICE**, October 2.—7th Dragoon Guards—Staff Surgeon of the Second Class George Northon Foaker to be Surgeon, vice Graves, appointed to the 4th Light Dragoons. 4th Light Dragoons—Surgeon J. Stewart Graves, from the 7th Dragoon Guards, to be Surgeon, vice Edward Smith Graham, M.D., who retires upon half-pay. 8th Light Dragoons—Surgeon Gideon Dolmage, from the 54th Foot, to be Surgeon, vice John Squair, M.D., who retires upon half-pay. 18th Foot—O'Connor D'Arcey, M.D., to be Assistant Surgeon, vice Ferguson, promoted to be Staff Surgeon of the Second Class. 49th Foot—Assistant Surgeon Robert Bridgeman Wigstrom, from the 1st West India Regiment, to be Assistant Surgeon, vice Roberts, promoted to be Staff Surgeon of the Second Class. 76th Foot—Staff Surgeon of the Second Class Robert Thomas Scott to be Surgeon, vice Maclean, who exchanges. 89th Foot—Richard Gilborne, gent., to be Assistant Surgeon, vice Morison, promoted in the 20th Foot. 1st West India Regiment—John Madden, gent., to be Assistant Surgeon, vice Bridgeman Wigstrom, appointed to the 59th Foot.

**HOSPITAL STAFF**.—Surgeon Andrew Maclean, M.D., from the 76th Foot, to be Staff Surgeon of the Second Class, vice Scott, who exchanges. Surgeon William Robinson, M.D., Supernumerary in the West India Regiments, to be Surgeon of the Second Class, vice Atkinson, promoted. Staff Assistant Surgeon John Loftus Hartwell to be Staff Surgeon of the Second Class, vice Foaker, appointed to the 7th Dragoon Guards.

**NAVAL APPOINTMENTS**.—Edward Groves, Surgeon, Robert Wylie, Surgeon, Superintendents to the Arabian convict ship; James Davidson, Assistant Surgeon to the Seaflower.

**ROYAL COLLEGE OF SURGEONS**.—Gentlemen admitted members on Friday, October 2.—G. Houlton, A. Ford, J. Higginbottom, R. C. Shettle, L. G. Broadbent, H. Smyth, T. C. Corry, H. Stevens, G. R. Schofield, G. K. Hardie, T. F. Wall, J. M. Joseph, T. F. I'Anson, P. P. Nind.

**ROYAL COLLEGE OF PHYSICIANS**, Sept. 30.—At the *Comitia Majora* held this day, the following gentlemen received the licence to practise in London, and were admitted members:—Richard Quain, M.D. (Lond.), Gower-street; Willoughby Marshall Burslem, M.D. (Edin.), Chester-place West; Protheroe Smith, M.D. (Aber.), John-street, Bedford-row; William Francis Chorley, M.B. (Cantab.), Leeds.

**APOTHECARIES' HALL**, September 24.—Robert George, William Beresford Chambers Christy, Frederick Mauger, Francis Smith, and John Rudall Holman. October 1.—George Frederick Jones, Edmund John Barker, and Frederick Eachus Wilkinson.

**THE PHARMACEUTICAL SOCIETY**.—The first meeting for the season was held in this Institution on Wednesday evening last. The meeting went off much as usual: the most interesting specimen exhibited being some living cochineal insects on the *Cactus opuntia*. We heard many gentlemen wonder at the poorness of the coffee provided for their refreshment, and sundry were the guesses at its cause: some supposed parsimony in the housekeeping department; but no one appeared to suspect the true solution of the problem—none imagined that, in an institution teaching scientific chemistry, coffee would be allowed to simmer for an hour or two in a wide evaporating dish over the laboratory fire, thus effectually driving off its aroma, and at the same time exposing it to the unpleasant odours of sulphuretted hydrogen, &c., which abound in such situations.

**LATEST NEWS FROM VIENNA**.—A new sect of homœopathists has arisen at Vienna. These gentlemen use 2, 4, 8, and 900th dilutions; and, not content with this, what, O reader! thinkest thou that the homœopathists have not only proposed, but carried into practice? Simply this, they permit the patient to smell the remedy—a single globule at a time—and wait four weeks for the action to pass off before they grant another smell! Do these gentlemen take snuff?

**UNIVERSITY OF ERLANGEN**.—At the last meeting of the Senate of this Institution, J. Hutchins Baylis, Esq., Surgeon to the Royal South London Dispensary, and a Member of the London College of Surgeons, received the degree of "Medicæ Doctor."

**BIRKENHEAD HOSPITAL AND DISPENSARY**.—In order to economise as much as possible the funds of this institution, it has been determined by the managing committee to take advantage of the office of house-surgeon being now vacant, to make a change in the arrangements, by which it is expected £40 per annum will be saved. The present compounder and dispenser of the medicines has received notice, in order that the duties of his office may be attached in future to those of the house-surgeon. On Wednesday the election of a house-surgeon took place. The candidates were eleven in number, and considering the onerous nature of the duties, and the smallness of the salary, the high character of the testimonials of those who have offered for the situation is truly surprising. One gentleman, in addition to documentary testimony, produced, as a proof of his capability, six gold medals, the rewards of academic triumphs, obtained at various examinations on medical science.

Malignant smallpox, such as has never before appeared in the neighbourhood, is causing serious mortality in the town of Montagnac (Herauld). It attacks indiscriminately all ages and classes of society. Vaccinated or non-vaccinated, according to the statement in the *Gazette Medicale de Paris*, few escape an attack. Our Parisian contemporary expresses the fatality attendant on the disease in the following terms:—"Each family is reduced to the assistance its own members are mutually able to afford each other; and when death puts an end to the patient's sufferings, the nearest relations are compelled to perform the sad rites of burial, from the want of the usual paid officials."

News received from Teheran up to the 19th ult. inform us that the cholera had lost much of its severity in that town, but that it was spreading in two different directions—towards the east and towards the south. It was making great ravages at Kavine and Zenginian, and at the same time at Koum and Cachan. At Tauris the appearance of the scourge was daily expected, and it was even affirmed that it had appeared within forty leagues of the town. The ravages at Teheran had been on the whole less severe than they were in 1835.

In the Geological and Mineralogical Section of the Italian Scientific Congress, held at Genoa, General Marmora communicated some observations relative to a red dust which had fallen in May last from the heavens at Genoa, Tunis, Sardinia, Corsica, and Pisa. Signor Moltedo communicated the result of an analysis of some of this substance collected at Genoa, by which it was demonstrated to contain animal matter, iodine, bromine, carbonates of lime and iron, alumina, and a trace of silica.

Seven hundred and eighty savans attended the scientific congress of Gênes; and a good many were refused admission, the committee having rigorously demanded the scientific claims of the applicants. The next Italian scientific congress is to be held at Rome, if the consent of the Pope can be obtained.

M. Berard, professor of chemistry, &c., at the University of Montpellier, has been appointed the Dean of the Faculty.

The wine used in the Parisian hospitals is that called *vin de bagnols*. It is a rather intoxicating wine, which contains about 17 per cent. of alcohol, and the practitioners generally order about four ounces, though sometimes double that quantity.

**KIRKALDY**.—**FEVER**.—Fever, and other diseases of a febrile nature, are still very prevalent in this town and neighbourhood. Few families have escaped the contagion in one shape or another, while cases of a serious and fatal character have now and then occurred during the past week.

Dr. Derry has just been appointed Physician to the Royal Metropolitan Free Hospital.

Mr. John Edge has been elected surgeon to the Devon and Exeter Hospital, to fill the vacancy occasioned by the resignation of Mr. Barnes, which we announced last week.

**DISTRESS IN SCOTLAND**.—The potato failure may be described in two words—total, universal, in Scotland. The visitation has fallen most severely upon the Highland and Island population of Scotland; and in many districts of that extensive territory scenes are already begun which are more than sufficient, were they but known, to awaken the sympathies of every feeling heart. Fever has, we understand, already consumed several.

Mr. George Shaw has been appointed Professor of Chemistry, at Queen's College, Birmingham, in the room of Mr. Tilley, resigned.

**DEATH OF MR. KING, OF CLIFTON**.—Our profession has to regret the loss of one of its most distinguished members, John King, Esq., surgeon, of Clifton, Bristol. Mr. King was by birth a Swiss, descended from a family who for many generations had filled the highest offices at Berne, and who were not less remarkable for their ability as magistrates, than for their successful cultivation and patronage of the arts and sciences; and many of them had dedicated themselves to the medical profession. Mr. King, before he came to this country, had attained much distinction as a man of very capacious intellect, expanded and strengthened by assiduous study. Critically acquainted with the Greek, Latin, French, German, Italian, and Spanish languages, the general science and literature of Europe were open to his indefatigable researches, and this variety of acquirement he made subservient to his medical pursuits.

**OBITUARY**.—Sept. 17, in Edinburgh, Dr. C. Gifford, late of Plymouth, aged 32 years. At St. Leonard's-on-the-Sea, on the 18th ult., Richard Simmons, Esq., M.D., F.R.S., and F.S.A., in his 65th year. At Aska, Ganjam, India, on the 20th of July, Dr. Thomas Duncan, son of the late Alexander Duncan, Esq., Glendevon, Linlithgowshire. On the 1st instant, at Warwick-square, Kensington, deeply regretted, R. Heaslop, Esq., late surgeon of the Hon. East India Company's service. At 1, Carlton-street, Edinburgh, 24th ultimo, George Ferguson, Esq., Staff Surgeon.

## MORTALITY TABLE.

For the Week ending Saturday, Oct. 10, 1846.

Causes of Death.	Total.	Average of	
		5 sum- mers.	5 years.
ALL CAUSES.....	935	898	968
SPECIFIED CAUSES...	933	892	961
Zymotic (or Epidemic, En- demic, and Contagious) Diseases.....	179	201	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	127	99	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	153	155	157
Diseases of the Lungs, and of the other Organs of Respiration.....	222	227	204
Diseases of the Heart and Blood-vessels.....	31	23	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	93	87	72
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.....	9	6	7
	15	9	10
Rheumatism, Diseases of the Bones, Joints, &c....	10	6	7
Diseases of the Skin, Cellu- lar Tissue, &c.....	7	1	2
Old Age.....	29	52	67
Violence, Privation, Cold, and Intemperance.....	58	26	26



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PROGRESS OF MEDICAL SCIENCE,  
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## France.

## ACADEMY OF SCIENCES.

Meeting of Oct. 5; M. A. BROGNIART in the Chair.

**M. LEVERRIER'S NEW PLANET.**—The best part of the meeting was occupied by the historical account of the discovery of a new planet made by M. Leverrier, entirely due to mathematical calculation. Professor Arago remarked, that the manner in which the discovery had been made reflected the greatest credit upon M. Leverrier, and proposed that the planet should bear, in future, the name of that astronomer. A precedent existed in the case of Herschel, and it was the greatest and noblest reward that could be conferred upon genius. A letter was read from the Minister of Public Instruction, to the effect that his Majesty the King of the French had been pleased to grant the decoration of Officer of the Legion of Honour to M. Leverrier, and the Cross of Knight of the same order to M. Galle, of Berlin, the first who saw the star upon the indications of the illustrious French observer.

**THE GUN-COTTON.**—M. Morel forwarded to the Institute several samples of the gun-cotton, and stated that he had discovered the secret of its preparation, and would communicate it at the next meeting. The experiments were performed, and were fully successful.

## ACADEMY OF MEDICINE.

Meeting of Oct. 6; M. ROCHE in the Chair.

**THE PLAGUE.**—The fourth conclusion having been adopted, the fifth was discussed. It runs thus:—"Out of epidemic centres the plague has never appeared in compromised individuals more than eight days after complete isolation." After a long debate, in which MM. Castel, Hamont, and Moreau repeated the arguments already adduced to prove that the incubation is not limited to that space of time, the discussion was adjourned to the next meeting.

## THE SPAS OF THE RHINE.

By Professor TROUSSEAU AND DR. LASEGNE.

## DISEASES OF THE LARYNX.—(Section 8.)

It is not easy to ascertain with precision the degree of efficacy of mineral spas in the treatment of chronic laryngeal diseases, because we possess very effective means of relieving them in general, and the cases which are sent to the mineral waters are often those exceptional instances in which all treatment has failed, and which are looked upon as irremediable; but, in using the mineral spas as a last resource in desperate cases, their real action has, perhaps, been in some measure overlooked. Where several returns of acute disease have modified more or less deeply the structure of the mucous lining of the larynx, the first indication is to change the mode of action of the disordered surfaces by sufficiently energetic local applications. This object is perfectly attained by caustics, and

particularly by nitrate of silver, and no mineral water could act with the same safety or the same promptitude. The caustics modify the local alterations, but do not change the predisposition: this is, on the contrary, effected by the use of mineral waters, not only in laryngeal diseases, but in all chronic disorders. Thus we endeavoured to show that in hypochondriasis, gout and tubercles, mineral waters are not specifics, but that they merely modify the morbid or morbidly-predisposed constitution of the patients, and thus change the nature of their ailments. When considered as topical applications, they cannot bear comparison with a hundred agents extracted from our Pharmacopœia; but when exhibited with the view of producing a slow change in the system, they often enjoy a decided superiority over all other methods of treatment.

Rheumatic angina, in its chronic shape, is so well known in its characteristic symptoms that we need not recapitulate them. When once rheumatism occupies the larynx or its neighbourhood, the slightest cause will bring it on again; after two or three relapses the disease can be no longer completely cured, and the intervals between the attacks can only be considered in the light of remissions during which the violence of the symptoms is more or less abated. The mucous membrane remains red and swollen, and the most efficient treatment certainly consists in local cauterization. But, besides the mucous surface, other organs participate in the disease: the muscles of the pharynx, for instance, do not contract without some pain, and the movements of the neck itself are not altogether free from a certain degree of rigidity and soreness. In such cases Wiesbaden and Aix-la-Chapelle may be resorted to with advantage; general baths, and the douche on the neck, are beneficial if used with perseverance by individuals sufficiently strong to bear the treatment. The waters of Wiesbaden are extremely warm—48 deg. or 50 deg. Reau. (140 deg. or 145 deg. Fah.); the baths should therefore be prepared twelve hours before the time at which the patient is to take them; but even then they remain so hot as to be to some extent perilous to persons who have a tendency to congestions of the head or chest. The douches are not open to the same reproach, but they must be continued for a very long time. The habit of drinking at the well is becoming every day more and more universal: still we cannot say that we consider it indispensable to the cure. If such were the case, however, we would advise another mode of exhibition. Persons affected with chronic rheumatism of the throat complain of a dryness of the fauces, which they state to be one of their most distressing symptoms. It is during the bath, and not in the open air, that we would recommend the lukewarm drink in order to allay this unpleasant complication.

In contradistinction to rheumatic angina, the catarrhal form generally shows itself at once with chronic characters; it is more happily influenced by mineral waters. The increase of secretion

usually leads, without difficulty, to the knowledge of its presence; but it is not, however, by any means so easy to recognise its causes, or to penetrate its nature. The morbidly-exaggerated activity of secreting organs is the last stage of a rapidly-accomplished progression, and the intermediate conditions between health and catarrh often escape us: sometimes, on the contrary, they are marked by an interruption in the onward course of the malady, and therefore submitted to observations. These signs, by which the generation of the disorder is revealed, must be attentively studied, because they may lead the practitioner to adopt a different line of conduct, according to the various modes of development of the malady.

Thus, in some patients, excessive tracheal or pharyngeal secretion is the only sign of angina; in others, on the contrary, signs of tracheal congestion are plainly discernible—the tonsils are red, the uvula enlarged, and the velum injected. It is true that real inflammation does not appear, nor is the patient threatened with an abscess; no fever is present, and after the symptoms have lasted some hours, or some days, abundant salivation or expectoration relieves them. Such is the complete picture of the disease; but it does not accomplish all its stages, and it is by these interruptions in the progress of the symptoms that its special nature and particular practical indications may be deduced. The object of the treatment evidently should be to arrest the congestion, and this is easily obtained by the exhibition of the waters of Ems.

In other cases, capillary congestion does not occur, or is of so short duration as to baffle investigation. The catarrhal affection sets in suddenly, and either remains an isolated fact, or is merely the present expression of a general predisposition. If several organs are occupied by catarrh at the same time, no mineral waters, to our knowledge, afford any chances of success. When, on the contrary, the catarrhal disease invades only a limited space, and is accidentally fixed on the larynx or trachea, then, indeed, the purgative spas of Hombourg, Kissingen, and particularly of Bohemia, establish on the large intestine an artificial flux, and produce a powerful derivation. In a separate class of patients the laryngeal catarrh remains perfectly local, and retains only a very distant connection with the state of the constitution. Under the influence of a sudden change of weather, of over-exertion, their voice becomes hoarse, and this symptom is immediately relieved by the expectoration of a greyish, transparent secretion. At first the accidents appear of too trifling a nature to deserve attention; but their repetition becomes more frequent, and becomes, after a time, a real disease. In these cases local treatment alone is available, and particularly the douche of carbonic acid gas, as it is applied at Nauheim. This method is extremely powerful, though little known; and, as it may be employed at home without change of resi-



dence, we will rapidly describe its mode of exhibition.

The water at Nauheim boils out of the Artesian well, discharging in its escape an immense quantity of carbonic acid, which is received into a tub; a metallic tube allows its egress. The douche apparatus is of an equally simple construction, and consists of a flexible pipe, terminated by a quill; through this the gas passes freely, and the patient introducing the quill into his mouth can regulate the douche and direct it at will upon any particular region, taking care to avoid deep inspirations. This application is not only active, but pleasant; the cool acidulated taste of the gas can only be compared with itself, and recalls that of champagne wine. Cold or warm sulphureous waters are also very efficient; in baths they are of no use; but when drunk they seem to act locally, and slowly to modify the organs of secretion.

#### DISEASES OF THE NERVOUS SYSTEM IN WOMEN.—(Section 9.)

The irregularity of symptoms in hysteria, and the absence of co-ordination in the manifestations of the malady, do not permit a rational classification; and from the uncertainty of diagnosis arises a great uncertainty in the treatment. If advanced hysteria is still surrounded with so much obscurity, what shall we say of those hysterical conditions which are only anomalies in the most anomalous of disorders? Neither violent convulsions, nor the globus, nor the extreme pain of clavus hystericus are present, but a something which participates of the nature of all three. They do not, it is true, threaten life, but they are not, therefore, to be considered as unimportant: how can we measure the gravity of any disorder if it be not by its degree of curability? A malady which baffles the skill of the most experienced practitioner, which resists all his efforts, and defies the best-conducted treatment, cannot be looked upon as insignificant. Persons who are in pain do not admit our classifications, and cannot be persuaded that they should bear with an enemy which leaves them no rest, and which grants no reprieve. The greatest number of the enjoyments of life they are deprived of; society fatigues and solitude overpowers them; the mind is constantly at work, and its preoccupations are soon productive of bodily pain and derangement. From doubt the physician passes to indifference; after the long list of antispasmodics, closed by the inevitable advice of amusement, mineral waters are recommended under the erroneous impression that they are places of enjoyment. But the patient takes matters more seriously to heart, and, determined to follow up the treatment, makes the waters the principal part, and the enjoyment the accessory, of the cure. How, then, can they be prescribed if their therapeutic action be not beforehand duly weighed and considered? Ems has been for many years the resort of sub-hysterical patients from all parts of Europe, and we must admit that many obtain no relief; but it is equally undoubted that alkaline spas are often productive of benefit. The concealed details of social life, the individual dispositions which keep up the disease, have a great share in the success or failure of the treatment. To many (mental suffering maintaining the disorder of the nervous system) mineral waters will be of no service whatever. There are, however, some general indications which, although incomplete, it may, nevertheless, be useful to consider. We will endeavour to sketch roughly the type of a nervous woman to whom the waters of Ems might be advantageous. These patients are in general of a high complexion, and of healthy appearance; their stoutness sometimes presents a singular contrast with their continual complaints, and with the frequent faintings against the reality of which their robust aspect seems to protest. The digestive functions are regular; the hysteriform attacks are most irregular, both as to their seat and as to their nature. The head and chest are most commonly occupied. In the head, all spasmodic fits are preceded by a visible congestion of the face; the nose, forehead, and cheeks, sometimes only one, become suddenly patched with red—but without any increase in the frequency of the pulse, or any apoplectic signs. This first stage of hysterical affections is chiefly interesting for the diagnosis;

but it indicates chiefly the necessity for the use of alkaline waters. The attack is seldom limited to such trifling manifestations: a frigid and limited pain is observed in the head, often compared by the patient to a sensation of cold, or vacuum, or burning heat—to a dragging more painful by its singularity than by its violence. In some the mouth is parched, and the tongue dry and even swollen; vain efforts of expectoration are made in order to remove the burning dryness of the throat. Occasionally a tremulous movement is observed in the eyelids; and vision is not disturbed unless syncope supervenes.

When the larynx or chest are attacked, congestion of the face does not so frequently usher in the fits; a sense of fullness in the chest, analogous to that which precedes expectoration of blood, is followed by tightness of the thoracic walls and imminent suffocation; convulsive agitation of the upper extremities occurs, the eyes are closed; hoarse sounds escape from the throat, and a sort of cataleptic rigidity terminates the fit. At first the pulse becomes weak, but soon recovers its fullness, the shock to the system having been overcome before the dyspnoea has passed away.

In other cases the womb is affected; deep-seated pain, spasms, and contractions are felt, and even occasional swelling of the os uteri; leucorrhœa and transitory retention of urine are also observed. Such are the forms which are usually benefited by the waters of Ems; their general character consists in partial congestions, either evident or latent. In many women menstruation preserves its regularity, and seems but remotely connected with the symptoms. The first effects of the alkaline waters in such cases consist in the production of signs of fatigue and weakness, which cause some uneasiness in the beginning, but which must be overlooked. After a couple of weeks, sleep is less regular; the appetite is unusually active; in the hands and arms a sense of dragging is experienced, which exercise dispels. It would seem as though a nervous attack was in preparation, but failed in acquiring its full development. The treatment generally lasts one month; and in proportion as the disease appears to extend all over the system, it appears to lose in violence.

When any hypochondriacal complications are present we find it advantageous to employ the muriate of soda; the strength gradually returns, and digestion becomes regular.

Of the other forms of nervous disorder we will say much less. When anemia or chlorosis are imminent, the first indication is to restore to the blood its stimulating properties which make it the "moderator nervorum." Steel purgatives are for this purpose most generally employed, and, whether dissolved in mineral waters or in any other vehicle, they answer this end equally well. In his description of Tunbridge Wells, and those of Bath, Sydenham long since laid down rules by which the physician may still be guided; he advises to drink the water during three days, to bathe, and afterwards to alternate the baths and the internal use of the waters. This treatment should be continued during two months at least—or rather until the symptoms have ceased. If ferruginous (properly so called) spas do not succeed, waters containing muriate of soda, together with steel, should be tried—those of Bath for instance, which in Sydenham's day were held to be sulphureous; but purgative action should carefully be avoided. In Germany it is still customary to bathe at the same time that the ferruginous waters are taken inwardly; this method appears useful, if not from the small quantity of the mineral absorbed, at least by the soothing influence of the warm bath, by which undue stimulation of the system is promptly allayed.

#### HOPITAL DE LOURCINE.

**HYPOGASTRIC FISTULÆ CONTAINING BILIARY CONCRETIONS; BY DR. HUGUIER.**—A woman, sixty-one years of age, of a strong constitution, was lately admitted into hospital for a fistulous affection of the abdominal wall. Twenty-five years ago she fell from a ladder and severely injured the region of the liver; an abscess formed,

which progressed slowly, and at last opened into the intestine: it was also necessary to puncture the abscess through the skin. Biliary calculi were at the time frequently rejected with the feces; the swelling persisted in the epigastric region during seventeen years, and suddenly disappeared after an attack of intestinal hemorrhage. Eleven years since, the hypogastric region swelled, and in the year 1840 an abscess was opened which communicated with the epigastric fistulæ. On admission into hospital she was found to present several fistulous orifices on the abdominal wall, and one situated immediately above the clitoris led by a narrow passage to the hypogastric tumour. On opening the fistula it was found to contain two biliary calculi, each of the size of a small hazel-nut.

**DESTRUCTION OF CALCULI IN THE BLADDER.**—In a late communication we forwarded an account of M. Dumesnil's new method for the destruction of the stone within the bladder. MM. Douillet and Deleau both dispute the priority of invention. Their claims have been referred to the commission named by the Institute for the investigation of the question.

#### LA CHARITÉ.

**UTERINE GRANULATIONS AND DEVIATIONS (CLINICAL LECTURES), BY PROFESSOR VELPEAU.**

Granulation of the os uteri is always attended with a whitish discharge—a diagnostic fact which should on no account be forgotten; pain in the stomach, in the inguinal and renal regions, and gradual loss of flesh are also most commonly observed. On examination *per vaginam* the os tincæ will be found slightly increased in size, and the finger receives the sensation which it might be supposed to experience on touching a solid raspberry. We believe that granulations are more easily recognised by the "toucher" than by the use of the speculum. When, however, they occupy the cavity of the neck of the womb, the speculum, by pressure on the os tincæ, separates its lips, and causes the exit of a purulent-looking fluid—a circumstance which leaves no doubt of the presence of granulations; they destroy the epithelium, but the tissue of the womb remains healthy. What is the prognosis of uterine granulations? Some practitioners believe that they can degenerate into cancer; this is far from being proved. A surgeon asserts, that since he has pointed out the best means of treatment for granulations, he hardly ever meets with cancer of the womb. This only shows that cancerous subjects do not seek his advice; but in this hospital, we are sorry to say, they are still too frequent. The granular condition of the os uteri may, in almost every instance, be cured by cauterization; and of all caustics the nitrate of mercury is the most efficient; it should be applied every week for six weeks, in order to yield its full benefit.

Granulations are often met with in combination with deviations of the womb; these are the most frequently observed of all uterine diseases: it is a deformity which exists unperceived in many women, and which is in others submitted to a variety of treatments directed against an imaginary disease. It is more common to find the uterus in a state of inflection than of inversion: thus the os uteri occupies its usual place, but the body of the womb is bent forwards, backwards, or laterally. Some practitioners treat these deviations under the name of uterine congestions, "engorgemens de matrice"; these appear, however, to have terminated their career, and are gradually losing ground in public opinion.

The most advantageous method for the treatment of deviations must consist in properly-applied mechanical supporters; and we must say that, in proving that most of the supposed "engorgemens" of the womb are nothing but deviations of the viscus from its natural position, we have not added much to our curative means; still we have obtained the certainty that the prognosis should be far more favourable than it was generally supposed, particularly if, instead of condemning the patients to immobility and diet, they are made to eat and exercise.

DAN, M' CARTHY, D.M.P.



## Italy.

**OBSERVATIONS ON THE BENEFIT TO BE DERIVED FROM THE ADMINISTRATION OF COD'S LIVER OIL, BY M. DAVERI.**—M. Daveri has published, in the "Bullettino delle Scienze Mediche," a memoir on the use of cod's liver oil, showing the results of the trials he has made of it. These results possess considerable interest. From the year 1839 M. Daveri treated scrofulous patients in the Hospital St. Orsola successively with muriate of barytes, preparations from the leaves of the walnut-tree, and preparations of iodine. The preparations made from the leaves of the walnut-tree in no case produced a cure; and the other preparations mentioned, although more successful, still left much to be desired. In May, 1845, M. Daveri commenced the administration of cod's liver oil in these cases. Twenty-nine patients affected with scrofulous diseases have since then been under treatment; of these sixteen have been cured, eleven have shewn considerable amelioration; in one no improvement took place, and one died of phthisis. Among these patients fourteen were affected with indolent swellings; others had glandular enlargements, scrofulous ophthalmia, and strumous eruptions. The dose of the remedy was usually from an ounce and a half to two ounces during the twenty-four hours.

**NEW METHOD OF OPERATING IN AMPUTATION OF THE PENIS, BY M. RIZZOLI.**—This gentleman has described in the same journal an important modification in performing this operation. He was led to seek a new mode of procedure on account of the difficulty which he often experienced in finding the orifice of the urethra, arising chiefly from the superabundance of skin which remains after the operation. M. Rizzoli sets out with the proposition that the integuments should be left of their natural length. He, therefore, himself retracts towards the pubes the skin covering the dorsum of the penis, at the same time that an assistant draws forwards the skin covering the urethral part of the organ. M. Rizzoli then commences his incision, by dividing first the urethra obliquely, carrying his bistoury from below upwards, and from behind forwards, immediately after which he concludes the incision, without removing his knife, by simply changing its direction, and carrying it straight upwards so as to divide the corpora cavernosa perpendicularly. The integuments divided in this way suffice above to cover the extremities of the corpora cavernosa, while at the same time below they do not hide the orifice of the urethra.

**TANNATE OF IRON IN THE TREATMENT OF CHLOROSIS, BY M. BENEDETTI.**—M. Benedetti has published a paper in the same journal, on the effects of tannate of iron in treating chlorosis. From the author's trial of this remedy in a great number of cases, of which he relates six, and from having watched its effects in the practice of M. Majocchi, M. Benedetti asserts that cases treated by the tannate of iron do not require more than from twelve to twenty-five days' treatment, according to the seriousness of the disease. The remedy may be given in quantities of from five to thirty grains daily; the remedy acts most rapidly on persons of sanguine temperament. M. Gaddi prepares this medicine in the following manner:—Throw on iron filings diluted sulphuric acid, so as to obtain a very pure sulphate of iron in solution; this is to be precipitated by carbonate of soda, forming a carbonate of iron, which is to be washed several times and afterwards dried. After being pulverized, 440 grains of this carbonate of iron are to be added by degrees to a solution of 90 grains of very pure tannic acid in a porcelain vessel. The solution is to be then constantly shaken until effervescence ceases, and afterwards it is to be exposed to a heat of 212 deg. Fahrenheit, until it attains the consistence of soup, when it is to be poured on evaporating dishes and dried at a temperature not exceeding 110 deg. Fahrenheit. The substance thus obtained,

which is the tannate of iron, is of a maroon colour, insipid, insoluble, and non-crystallized; before being completely dried, however, it forms long needle-shaped crystals. It may be administered either as a syrup, or in the more convenient form of pills.

**SCHIRROUS DEGENERATION OF THE PAROTID AND SUB-MAXILLARY GLANDS REMOVED BY OPERATION—ABSORPTION OF AIR INTO THE VEINS—RECOVERY.**—M. Mazzuttini relates in the "Memoriale della Medicina Contemporanea" the following interesting case:—Thomas Marangoni, aged forty-six, of sanguine temperament, in August, 1842, caused one of his molar teeth on the right side to be extracted. Severe inflammation followed, and a swelling in the parotidian fossa of the same side remained, which gradually acquired the size of a pullet's egg. In May, 1845, an unsuccessful attempt was made to remove this tumour, which was found to be partly atheromatous and partly lipomatous. The wound made by this attempt healed, but the edges of the cicatrix continued swollen, hard, and painful. From this period the patient constantly complained of pain, worse during the night in the seat of the wound and all round it, especially towards the mastoid process and in the neighbourhood of the clavicle. The tumour increased in size, and about the middle of December it was half as large again as the fist of a man; it was round in shape and smooth on its surface, with the exception of a few large dilated veins. Its horizontal diameter was about five inches, its vertical about six. It was firmly adherent to the adjacent strictures and perfectly immovable. Its nature appeared evidently schirrous. The patient had tried without benefit various remedies, among which may be mentioned compression, preparations of iodine, and sedatives. As, therefore, his constitution was good, his lymphatic system healthy, and as the tumour had originated from a traumatic cause, M. Mazzuttini determined to attempt its removal by operation, though well aware of the dangers of such a proceeding. Accordingly, on the 25th of January, 1846, the patient being laid on his healthy side, M. Mazzuttini circumscribed the centre of the tumour by means of an elliptical incision on either side; from each of these incisions he made two transverse ones, so as to form two flaps on each side; these were dissected back. The operator next proceeded to expose the anterior surface of the tumour, and to separate it from its adhesions first on its posterior and then on its anterior border. In doing this he had to tie the mastoidean artery, a branch of the occipital, the transverse facial, and the external maxillary; the trunk of the temporal was tied near the upper extremity of the ramus of the jaw. The tumour being thus partly separated became a little more moveable; and the operator commenced the dissection of its deep surface. But to separate the tumour from the parts beneath it, behind, and internal to the ramus of the inferior maxilla—to separate the parotid from the sub-maxillary gland, which was also diseased—to detach by a delicate dissection the tumour from the digastric muscle and the stylo-maxillary ligament, and to separate its attachments to the internal pterygoid, the stylohyoid and stylo-glossus muscles—were matters of considerable difficulty among a mass of organs of such importance. The dissection was commenced partly by cutting, partly by tearing, and partly with the handle of the scalpel. The external carotid was at this moment wounded and immediately tied—a circumstance which had been expected, and which was so far fortunate that it removed much trouble from the operator, by rendering further ligature of its numerous branches unnecessary. Nothing further now remained except to root out the tumour at the upper part of its deep surface. This was an undertaking full of difficulty and danger, as the schirrus buried itself deeply under the base of the cranium, reaching as far as the root of the styloid process. By following it with the knife the internal carotid was placed in danger, as well as the internal jugular vein, and the pneumogastric and hypoglossal nerves. The idea of liga-

turing the root of the tumour suggested itself, but, as this would have left some of the diseased tissues, it was decided to continue the dissection, first securing the tumour firmly forwards. The tumour was then separated from the internal carotid, the pulsations of which could be distinctly seen from the inner side of the anterior border of the mastoid process, from the digastric fossa, from the Glasserian fissure, and from the base of the styloid process, which could be distinguished by the finger quite bare. The state of the sub-maxillary gland rendering its removal necessary, the incision was prolonged so as to give more space for this operation. But whilst the gland was undergoing separation, a rush of venous blood suddenly occurred, and the patient fell back apparently dying. His face became pale and corpse-like; his eyes were turned upwards; his pupils dilated; respiration hurried and gasping; and pulse thready. The operator instantly thrust his finger into the wound, compressing the internal jugular vein, had water sprinkled upon the patient's face, and ammonia applied to his nostrils. After a few minutes the patient recovered; and, although still of a deathlike paleness, desired the surgeon to proceed with the operation. It only further remained to excise the sub-maxillary gland, and three prolongations or roots of the diseased parotid: one of these extended to the other side of the masseter muscle; another into the zygomatic fossa; and the third towards the temple. Lastly, the wound was examined, and any diseased portions that remained were excised. The wound resulting from the operation, presenting a frightful aspect, was then dressed. The flaps were brought together by twelve points of interrupted suture. The operation, altogether, lasted thirty-five minutes, and the patient bore it with admirable courage. Everything afterwards went on favourably, with the exception of slight fever occurring, which was removed by bleeding and diluents; and by the fortieth day the wound had perfectly healed, and the patient was discharged. The patient was seen six months afterwards, when his health was excellent, nothing betokening a return of the disease being manifested. On examination the tumour was found to present, both on its surface and in its interior, all the characters mentioned by Scarpa as denoting schirrus of the conglomerate glands; three small cysts, about the size of a grain of maize, and containing a thin fluid were found in its centre. Paralysis, both of sensation and motion in the side of the face which had been operated on, followed the removal of the tumour.

## Scotland.

**AGE OF PUBERTY IN THE ISLAND OF MADEIRA.**—Dr. Robertson has published a paper in the "Edinburgh Medical and Surgical Journal" on the age of puberty in females of the island of Madeira. The island is said to consist of a huge mass of basalt, and is situated in latitude 32 degrees. It terminates in a cluster of mountains, the highest of which rises nearly six thousand feet above the level of the sea. The mean annual temperature of Funchal, the chief town, is about 64 degrees Fahrenheit; this moderate mean temperature being owing to the coolness of summer at Madeira, that season averaging only about 7 degrees above London, while the winter averages 20 degrees higher than the latter place (a). Considering the latitude and temperature of the island, the mean period of the appearance of puberty seems remarkably late.

It appears that the mean of 228 cases gave fifteen years and five months nearly as the average; whilst the mean of 540 cases in England gave fourteen years and ten months.

The following is a tabular view of the cases

(a) It appears that during the summer just past the temperature at Madeira has been less than at London; the thermometer at Funchal not having risen above 85 degrees.



showing the numbers reaching puberty at different ages:—

Ages.	Madaira.	England.
9 .....	0 .....	3
10 .....	0 .....	14
11 .....	2 .....	19
12 .....	11 .....	35
13 .....	19 .....	66
14 .....	35 .....	99
15 .....	67 .....	104
16 .....	40 .....	85
17 .....	21 .....	54
18 .....	12 .....	34
19 .....	17 .....	16
20 .....	4 .....	8
21 .....	0 .....	2
22 .....	0 .....	1

228

540

**CASE OF SWEATING SICKNESS.**—Dr. Lawrie has published in the "Monthly Journal of Medical Science" a case of this disease; it had been previously read before the Medico-Chirurgical Society of Glasgow. The patient was a healthy, active, robust man, aged about sixty, but liable to biliary derangements. An attack of this kind came on apparently from drinking bad porter, and the patient continued poorly during the week; three days afterwards he was seized with pain round the umbilicus, and bilious vomiting on the second night, after which he slept well till about one in the morning, when he awoke bathed in profuse perspiration, the sheets being literally dripping. This perspiration continued till six in the morning, by which time his blankets, pillows, and part of the feather bed on which he lay were dripping wet, the sheets in particular appearing as though they had been dipped in a stream of water. At ten on the same morning he had what his family described as a fit of ague, followed by cramps in his limbs and a return of the intense pain in the abdomen: a large blister was applied over the abdomen. Early in the forenoon he was found very weak and restless; his pulse small and easily compressed; voice husky and choleric; cold perspiration, especially on the bead; countenance sunk; intense thirst and desire for cold water, and a feeling of internal heat. These symptoms were aggravated in the afternoon. The pulse became more and more feeble, and, at last, imperceptible at the wrist; and the other symptoms increased with the addition of vomiting, purging, and a tendency to delirium and slight stupor. Brandy and water, cold water, and beef-tea were given as freely as they could be taken. At nine on the following morning the pulse was little more than perceptible, it was not to be counted at the wrist, but quite distinct in the groin; constant restlessness and tossing; no urine. The patient had, in fact, many of the symptoms of a cholera patient in the stage of collapse. In the evening rallying had commenced, but the other symptoms were much the same. On the following morning the rallying was completed, and the patient during the day rose and shaved himself. He had a relapse on the day after, with bilious stools and vomiting of grass-green matter, and was subsequently collapsed. He gradually recovered from this state, however, and though convalescence was protracted by a mild secondary fever, he recovered perfectly in about a month. Dr. Lawrie adds some remarks on the amount of perspiration and its immediate effects in producing severe collapse, which he says he had never before noticed; and then proceeds to show by quotations from the old authors on the symptoms of the sweating sickness, that this case was a sporadic example of that disease.

**NATURE OF THE MEMBRANE EXPELLED IN DYSMENORRHOEA.**—Dr. Simpson, in a paper published in the "Monthly Journal of Medical Science," states, with regard to the membrane discharged in some cases of dysmenorrhœa, that an observation of numerous cases has led him to believe that it does not consist of shreds of coagulable lymph, as has been stated by previous observers, but rather that the shreds consist of the mucous membrane of the uterus itself, hypertrophied and separated. All Dr. Simpson's recent observations tend to confirm the view of the subject that he

took some years ago, namely, that these shreds consist of actual exfoliations of the membrane itself. In proof of this opinion, Dr. Simpson states first, that the membrane discharged presents anatomical peculiarities that are never seen in a simple fibrinous or inflammatory exudation; while, on the other hand, these anatomical peculiarities specially pertain to and are characteristic of the structure of some mucous tissues, especially that of the uterus. Secondly, that the general configuration and character of the surfaces of the dysmenorrhœal membrane are such as would result from the exfoliation and detachment of the mucous membrane of the uterus. In the cases in which the membrane is thrown off in one piece, and without disintegration it presents exactly the flattened triangular appearance of the uterine cavity. Its sides are sometimes so compressed that the expelled mass, at first, may appear solid; but a little careful dissection will show that it consists of ten layers, and that there are the remains of a cavity between them, and occasionally three openings may be traced at its three angles, corresponding with the fallopian tubes and the os uteri. Thirdly, the dysmenorrhœal membrane exactly resembles the membrane decidua, which many high authorities believe not to be a new formation, but only the normal mucous membrane of the uterus hypertrophied.

**AMPUTATION AT THE KNEE-JOINT.**—Dr. Geo. Williamson has described, in the same journal, an unsuccessful case of amputation at the knee-joint. The case was one of ulceration of the cartilages, and the soft parts were very much diseased: the patient being at the same time a very unfavourable subject for operation. An incision was made across the front of the joint, nearly on a level with the lower margin of the patella, the skin dissected up, and the joint opened above this bone; the ligaments were then divided, and a flap made from the muscles of the calf of the leg, the knife being carried as far as the lower part of the gastrocnemii, and the condyles of the femur sawn off. Four arteries required ligature. Five days afterwards, the patient was going on favourably, and union seemed to be taking place. A few days later, however, the flaps fell open; no granulations appeared; profuse discharge came on, with diarrhoea and hectic; the other leg became œdematous, cough and purulent expectoration supervened, and the patient sunk about five weeks after the operation. This case was evidently not suited to the performance of amputation so near the diseased joint. The soft parts contained several abscesses, so that union was improbable, and from the mistake that occurred in making all the flap from behind, union was, to say the least, very unlikely. A large amount of suppurating surface, which might have been avoided, was also thus produced.

**POISONING BY KING'S YELLOW AND BY MORPHIA.**—Dr. Paterson records two cases of poisoning in the "Monthly Journal of Medical Science,"—one by king's yellow, the other by the small dose of two drachms of the solution of muriate of morphia. In the first case the poison was taken by a woman for the purpose of suicide, and consisted of about a drachm of the king's yellow (impure sulphuret of arsenic). It was taken about ten or twelve hours before the patient was admitted into the hospital. Vomiting commenced from two to four hours after taking it, and continued frequent and abundant until the patient's admission. Nothing except some milk had been given. There was extreme collapse, the surface of the body was cold, but there was little uneasiness of the abdomen or epigastrium on pressure. Warmth was ordered to the surface, and the hydrated peroxide of iron was administered as an antidote to the poison. In the evening the pulse had risen, and warmth was restored to the surface. The peroxide was vomited at first, but afterwards it remained on the stomach. There was slight tenderness of the epigastrium on pressure. On the following day the abdominal tenderness had increased, and there was some irritability of the rectum. The patient complained of slight pain in the larynx and trachea. In the evening of this day there was scarcely any epigastric tenderness, but the breathing was slightly accelerated, and mucous râles were audible all over the chest, but there was not much cough. On

the second day the chest symptoms were found to have increased rapidly. When seen at night there was violent cough and extreme dyspnoea, the lungs appearing to be loaded with serum. These symptoms increased, and the third day, or about sixty hours after having taken the poison, the patient died of the chest affection. On *post-mortem* examination the lungs were found much engorged with frothy serum, and at several points, especially in the lower lobe of the right lung, presented numerous patches of apoplectic extravasation of blood. The mucous membrane of the bronchi to their terminations in both lungs was intensely congested, and presented a deep brownish red colour. The larynx and trachea presented similar appearances in their mucous linings. The stomach contained about four ounces of fluid of a dirty green colour, thick and turbid, and patches of dirty greenish-coloured mucus adhered to its inner surface. The rugæ were tolerably prominent, and there were no ulceration, patches of effused lymph, or traces of active inflammation. Some few arborescent vascular patches were observed here and there. The other case was that of a female, aged nineteen, suffering from pneumonia, for whom an eight-ounce cough mixture containing two drachms of a solution of muriate of morphia (equivalent to one grain of muriate of morphia) had been ordered. This quantity was, of course, intended to be taken in divided doses at considerable intervals. The patient, however, being anxious for relief, commenced taking the mixture at eight P.M., and took it all before two A.M. She then became insensible, and continued so until she was brought to the hospital at nine A.M. When admitted neither her history nor the substance taken was known. She was perfectly insensible; breathing somewhat hurried and oppressed; pulse almost imperceptible, and so rapid as not to be counted; and pupils contracted to a point about the size of a pin's head. The stomach pump was immediately applied, but brought away nothing; and warm water was then injected, immediately after which operation she died. On *post-mortem* examination nothing morbid was found in the head. On opening the chest the right lung did not collapse; it was heavy and condensed, and, on slicing, was found hepatized throughout, except at its anterior margin, where it crepitated. Its upper portion was of a brown mahogany colour, granular, and sunk rapidly in water. The middle portion was much paler in colour than the rest, and presented all the appearances of grey hepatization. The substance of the right lung was engorged throughout, but crepitant.

## ORIGINAL LECTURES.

### ADDRESS

#### INTRODUCTORY TO A COURSE OF LECTURES ON SURGERY,

By WILLIAM FERGUSSON, Esq.,

Professor of Surgery in King's College, Surgeon to King's College Hospital, &c. October 6, 1846.

**GENTLEMEN;**—The object of the lectures which I have the honour of delivering in this college is to teach the principles and practice of that department of the healing art denominated Surgery. In accordance with the usual course of medical study, the student is not expected to attend such lectures until he has entered upon the second or third year of his progress; and, presuming that you are all thus far advanced, it is scarcely incumbent on me to point out in an introductory address in what respect surgery differs from other branches of practical medicine, more especially as I am aware that most of you have already become tolerably familiar with these subjects during your attendance at the hospital last season. I must, however, on such an occasion as this, make some special reference to my own department, and shall, therefore, devote the hour to-day to the consideration of certain topics which I deem worthy of notice in a lecture introductory to the science and art of surgery.

Some of the leading distinctions between surgery and the other great department, usually termed medicine, are very palpable. For illustration I may select the following cases:—Two strong able-



border of the tendon, and to make as small an incision as may be necessary." (P. 155.) From this account it is difficult to make out whether Mr. Pott divided the stricture upwards or outwards, although he is generally said to have divided it upwards, more especially as he says, "Of the two, the spermatic cord is certainly the more to be regarded, as the total division of it would in all probability render the testicle on that side useless. If the artery be wounded, it must be taken up with a needle and ligature; but the doing is not so easy as the directing it to be done." (P. 154.)

The division of the stricture outwards was supported by Mr. Sharp. But Mr. Else, in his lectures, appears to have held the same notions as Mr. Pott, and observes—"If I was obliged to wound either one or the other, it should be the epigastric rather than the spermatic cord; but I think I could dilate the ligament easily without wounding either. However, it will be right to endeavour to return the hernia without dilating the ligament, and previous to this the intestine should be drawn out a little to discover if there is any stricture. If we cannot return the intestine by this means, we try whether notching or snipping the ligament in two or three places will be sufficient; if not, we must dilate it." I may here notice that notching the mouth of the rupture sac was subsequently advised by Scarpa, and often quoted as his operation, though practised long before. Mr. Else proceeds:—"I would make a transverse puncture through the ligament, and pass the director so that it might pass between the ligament and the spermatic cord which lies under the ligament, and carry a knife with a crooked point and divide it. If a part is not divided, you then carry the director downwards and divide it; and this is the method I would try in a case of this sort." Whether Mr. Else performed this operation does not appear, but it has been successfully performed in the Royal Infirmary of Edinburgh: twice successfully by Mr. Law. Mr. Bonett, of Yarmouth, also performed it, but with great difficulty and Dr. Hall made the attempt, but could not pass the director behind the stricture from above.

Dupuytren divided the stricture from within outwards, and from below upwards, parallel to the spermatic cord, but very differently from Sharp's method. He used a button-ended bistoury, having a narrow blade and convex edge, with which he divided the tissues from without to within, according to Benj. Bell's proceeding with inguinal rupture.

Malgaigne, after reviewing the different proposals for the division of the stricture, and showing that in some cases, it may be divided without danger inwards or outwards, whilst in other cases it cannot be divided in either way without danger, observes:—"We may, however, escape all danger by following, as far as possible, the general principle which he has laid down for the division of the stricture in ruptures—*always to lay bare the seat of strangulation, and never to cut anything without being well assured what you do cut.*" (P. 568.) Notwithstanding, however, he prefers dilating the orifice with Leblanc's instrument, and never having recourse to the knife but on the most urgent need.

Much dispute has long existed in reference to the seat of stricture in femoral rupture. As may have been noticed from the quotations I have made (a) from Pott and Else, the stricture was formerly considered to be in Poupart's ligament; this, however, was disproved by Gimbernat (b), who considered that it was "the border of the crural ring, now generally called, from him who first described it, Gimbernat's ligament, which always formed the strangulation." Mr. Lawrence agrees with Gimbernat on this point, and observes, "This is the very part which constitutes

the stricture, and where a smaller division will accomplish our object than many other situations." (P. 507.) Sir Astley Cooper says—"If the hernia be large, the seat of stricture may be at or under the opening in the fascia lata, through which the covering formed by the sheath of the femoral vessels is protruded; but generally, the stricture will be immediately beneath Poupart's ligament, in the mouth of the sac itself, where the hernia quits the abdomen. \* \* \* In some cases, when the hernia is large, strictures may be found both at the crescentic margin of the fascia lata and under the crural arch of Poupart's ligament, and each will require division; that at the fascia lata must, of course, be first liberated." (P. 101-2.) In dividing the inner stricture it has been recommended to cut in the direction of Gimbernat's ligament towards the pubes; but, as the stricture is not occasioned by this ligament, there cannot be any necessity for dividing it. "I have known," says Sir Astley, "Gimbernat's ligament divided, from an idea that it formed the stricture, but the stricture still remained at the orifice of the fascia propria, or in the mouth of the sac itself, and the patient died." (P. 103.) In confirmation of this statement, I can also add that I recollect, during my studentship, seeing Sir Astley Cooper operate on a case of strangulated femoral rupture, in which, after opening the sac and exposing the bowel, he, for the express purpose of ascertaining the fact, divided freely Gimbernat's ligament from the outer surface of the sac inwards, and attempted without success, the return of the bowel; which, however, was readily reduced when the neck or mouth of the sac was divided from within. The correctness of Sir Astley's opinion as to the seats of stricture, has been also confirmed by the observations of both Hesselbach and Langenbeck.

Mr. Key does not consider that the stricture is generally in the neck of the sac. He says—"A stricture from thickening of the neck of the sac I believe to be of very rare occurrence, and it is not improbable that, in some of the cases in which the stricture has been attributed to this cause, the supposed thickening of the peritoneum arose from the band of fascia propria girding the neck of the sac. \* \* \* It may, however, happen; and when the stricture is caused by it, the sac must be opened to accomplish its division, as the contents of the hernia cannot be otherwise returned." (P. 119-20.) He subsequently observes—"The band that produces the constriction at the femoral aperture, is not entirely a process from Poupart's ligament, but is also formed by a tendinous band on the fore part of the femoral sheath, where the fascia transversalis passes in a funnel form behind Gimbernat's ligament, to be inserted into the pubes." (P. 144.)

In operating on strangulated femoral rupture without opening the sac, Mr. Key makes an "incision either at right angles to Poupart's ligament, or in a transverse direction across the tumour" (p. 142); and having divided the superficial fascia, and exposed the fascia propria, "the first distinct covering of the tumour being darker than the more superficial cellular investment" (p. 143), he makes "a small opening into it sufficient to introduce a director up to the seat of stricture under Poupart's ligament." (P. 133.) "Under this outer layer of this fascia the adipose stricture is formed, and which often assumes the appearance of omentum. The director easily makes its way under this fatty matter as far as the neck of the sac, which lies deeper than the operator at first supposes. The point of the director should be applied rather to the inner than to the outer part of the neck of the sac, as it will be found more easily to pass under the stricture on this part. It should not at first be attempted to be thrust under the stricture, as the firmness of the parts forming the stricture would resist it. But the seat of the stricture being felt, the operator should depress the end of the director upon the sac, which will yield before it, and then by an onward movement the director slides under the stricture." (P. 144.)

The stricture having been relieved, the return

of the protruded bowel is effected in the same way as in operating for inguinal rupture, after having examined the parts and ascertained there are no circumstances which forbid that proceeding. The angles of the flaps of skin are brought together with a stitch, and a thick wad of lint applied over the wound and fastened with sticking plaster. The dressing should not be disturbed for two or three days, and then the suture removed and adhesive plaster or poultice applied, according as the condition of the wound seems to require.

## DUMAS ON ORGANIC CHEMISTRY.

### No. II.

(Continued from p. 7.)

Before proceeding further, I should, nevertheless, add that there are plants which, in addition to the azote taken from the ammonia, fix also that of the air; whence we are led to divide plants into two principal classes:—1st, those not fixing the azote of the air, such as the cerealea; 2nd, those which fix the azote of the air, such as the leguminosæ in general.

This distinction in plants being understood, we have only to leave out of the question those plants that fix azote, to arrive at the conclusion that agriculture would be obliged to reproduce our corn-food by means of human urine, aided by the carbonic acid contained in the air. But as the herbivora are only an intermediate agency between the carnivora and vegetables;—as the food of this intermediate agency is composed principally of plants which have the power of assimilating the azote contained in the air; as the herbivora, besides the meat with which they furnish us, supply also manure for agriculture, the azote of which, taken partly from the air, being transformed into ammoniacal salts, by putrefaction, becomes an aliment susceptible of assimilation by the cerealea, or by those plants not having the requisite properties for assimilating this element from the air;—the problem of agriculture is thus made to present itself under another form; and is in fact the art of extracting the azote contained in the air to the profit of those herbivora which at once furnish us with meat, and supply the necessary manure for our corn.

If the ammonia contained in the urine reproduces a great portion of the azotized matters on which carnivorous animals feed, it is easy to deduce, as the immediate consequence of this fact, that the human race give back to the earth substantially all the products they derive from it. If we consider only one part of the surface of the globe, this is incorrect; but if we take the whole, it is true, with the exception of some trifling loss, the value of which we cannot now discuss.

A slight glance at the manner in which urine is made use of will show the waste it is subject to. A great portion becomes decomposed in its free exposure to the air—becomes absorbed in the atmosphere, and, wafted by the winds, falls again in rain; so that—now in the earth, now in the air, and again returning to the earth—the urine which is one day decomposed in Paris, may on another return to us as tea from China.

The agriculturist, then, should do his utmost to retain for each locality the ammonia it produces. If it escape, it will, doubtless, be quite as useful to his neighbour as it would have been to himself; but, carefully saving it, he prevents a waste which can never be repaired without expense, and sometimes not at all.

I insist upon this necessity of saving the ammonia: for if, instead of merely examining its formations in the plant, we proceed further, and follow up the consequence of its employ, we recognise still further its immense importance. Thus the manure of Belgium, so important to that country, gives fertility to the land, and becomes a source of wealth and happiness of the population, who know its value. And if ammoniacal salts are the agents by which azotized matters are produced, it is obviously upon the art of keeping those salts that depends the progress of agriculture; for, in the present state of science,

(a) Lectures on Surgery, vol. iii. Edited by Tyrrell. 8vo., 1827.

(b) Account of a New Method of Operating for Femoral Hernia. Translated by Beddoes. 8vo., 1795.



chemistry knows of no artificial production of them by cheap means. To manufacture ammonia would be to produce the agent which serves in vegetables to form albumen, casein, and fibrin. To make albumen, casein, and fibrin, would be to make animal matter; and hence a cheap manufacture of ammonia is, in other words, the increase of animal life, and, as a consequence, an augmentation in the means of existence for the whole human family.

This brief sketch shows the important part played by ammonia in the phenomena of organized life. There are, however, yet a few observations to be made on this subject; albeit, previously, we are called on for a few remarks on the agency of carbonic acid and water. Azotized matters, forming the principal food of man, contain carbon and hydrogen; we know, also, that we consume amylaceous, gummy, saccharine, and fatty substances, consisting solely of carbon, hydrogen, and oxygen.

Now, with a small exception laid down to us by M. Payen, vegetables, in order to fix carbon, hydrogen, and oxygen, for the production of these fatty and other matters, need no other nourishment than carbonic acid and water—the two excretions of man.

Conveyed down into the soil through the roots—carried by the sap through its various ramifications, or derived wholly from the air through the leaves—the carbonic acid, in contact with the green portions of the plant, is decomposed under the direct influence of the solar rays. The carbon is absorbed by the plant—the oxygen given off. The water in the plant, under the same influence, undergoes a similar decomposition: its hydrogen is absorbed—the oxygen given off. We may add that, during vegetation, water is naturally formed under a vital influence; or at all events we find, by analysis, hydrogen and oxygen in the proportions of water. No matter, for the present, the manner in which the water is so formed.

In these phenomena plants have a very opposite action to that of animals. They fix the products exhaled from the lungs as well as those of the urinary excretion: playing, in fact, in organized life the opposite rôle to that of animals.

Plants fix carbon, hydrogen, azote, and water. By means of these materials they manufacture organic substances, and give off oxygen to the air. Animals, on the contrary, burn by means of oxygen the organic materials manufactured by vegetables, and give off to the air carbonic acid, water, and oxide of ammonium. This antagonism too, is not confined to ponderable bodies. Vegetables absorb chemical forces—heat, electricity; animals produce the two. We may, then, sum up these facts in the sentence, that vegetables are apparatus of reduction—animals, apparatus of combustion.

Must this circle—this come and go of matter—be, as far as we see, eternal? Will agriculture—which has to support man by food in the first place, and by the oxygen, which she, in the next place, gives to the air—always find the materials necessary for the nutrition of plants?

Taking this question in its most general sense, we may give an affirmative reply. Agriculture will never want water, nor carbonic acid, which volcanoes and animals are constantly disengaging; and the losses in ammonia which it appears to sustain are only apparent. On the other hand, agriculture, considered specially in reference to some particular part of the globe, may suffer for the want of ammonia, unless human care be given for its preservation.

Let us rapidly see what are the means of remedying the local loss of ammonia. They are principally four:—

1. The importation of cattle.
2. " " of corn.
3. " " of azotized manures.
4. The cultivation of artificial meadow land.

With a little reflection, starting with the opinions we have already announced, we next see that these four points make but one; and that the importation of cattle, corn, and manure is only a

temporary expedient requiring constant renewal—a sore nourished, not cured.

A study of sound principles proves that the true remedy is to ascertain, in proper relations, the cultivation of that grass which fixes azote; the rearing of the herhivora which transfer it into food and manure; and the cultivation, by labour, of the soil where this manure is transmuted into corn—the food of man. As a consequence, the remedy is in a just proportion between meadow and arable lands.

To support man, we require meat and corn. Now, for corn, we require manure; and for meat, grass.

Human beings live but in two ways, if they would escape the severe sufferings that attend famine: the one is, as in Flanders, by a careful collection of all the manure produced in the country, that it may be returned to the soil; the other, by a full but *proportionate* cultivation of meadow lands.

The one gives less meat—but, at all events, gives corn; the other, the more perfect, gives corn and meat proportioned to the public wants.

The lawmaker ought to direct his efforts towards forming canals for irrigating lands devoted to agriculture. These lands would then be given to pasturage. The consequence would be that the rearing of cattle would increase, and, by the increase of manures, richer harvests would be secured with less labour; although less land would thus require human labour, we should have more cattle, with no diminution of corn. The canals would be serviceable also for intercommunication.

Deep study upon the nature of hay and corn, and the constituents of meat, has placed the excellence of this system beyond cavil. I recommend it strongly to every friend of French agriculture.

England has long practised this secret. It is to her interminable canals and numerous pastures that she stands indebted for the number and beauty of her cattle, and the fertility of her corn fields, which produce proportionately double as much as most of our own.

To return. In nature nothing is created, nothing lost; all the phenomena observed on the surface of our globe in organized beings are due to combinations which *form*, or to combinations which do the contrary. Vegetables manufacture food for animals in the ordinary processes of their existence; they give to the air the oxygen which animals consume, and which they use to decompose and consume the aliments furnished them by the vegetables; and the products of that combustion become in turn the food of plants.

The more general principles, then, of the static chemistry of organized beings may be reduced to this:—animals are machines for combustion, vegetables for reduction. This theorem once established—and it was announced by me many years since—nothing is more easy to the intelligent chemist than to extract from it all the consequences logically derivable from it, and which practice has, for the most part, long recognised and classified.

#### THE NUTRITION OF PLANTS.

Vegetables are fed on animal excretions—that is to say, on water, carbonic acid, and on oxide of ammonia: they receive this nutrition by the intermediation of the air. Considered as a whole, then, the study of the nutrition of plants consists, in fact, in an examination of their relations to the atmosphere.

Vegetables which have had some period of growth present an incontestible accumulation of matter in their tissues; they acquire carbon, hydrogen, oxygen, and azote. They acquire also earthy and mineral matters; but for the present we will leave these out of consideration, to resume them later.

By limiting our examination to the principal phenomena, and removing those accidental circumstances which might intervene, we may satisfy ourselves of the truth of the preceding results by the aid of a few simple but conclusive experi-

ments. They leave no doubt as to the fixation of carbon, hydrogen, oxygen, and azote, which takes place in plants, nor as to the way in which it is accomplished during vegetation.

M. Boussingault employs in this experiment a large receiver with three apertures attached. To the first of these is fixed an apparatus filled with water for the purpose of cleansing the atmospheric air, and depriving it of any dust it may hold in suspension. To the higher tube a funnel is attached, which may be opened or closed at will: its object is to introduce distilled water, by which the seeds or plants placed under the receiver may be watered. The seeds and plants are contained in a capsule, or vase, filled with calcined sand. The receiver rests upon a pipkin, to which it is accurately cemented, excluding the admission of air.

The third aperture communicates with a large supplementary flask by means of a syphon-formed tube and an apparatus for washing, intended to retain the carbonic acid, but of no use as regards the experiment itself. The flask being filled with water, and the apparatus well closed, if the stop-cock affixed to the inferior part of the washing apparatus be opened, the amount of the air displaced in the receiver may be determined, the operation being repeated as often as necessary.

By these precautions there is no chance that the seeds or plants enclosed in the receiver can have access to any nutrition, save water, air, and carbonic acid.

Now, if we sow peas in this calcined sand, taking care to water them and to renew the atmosphere, they will germinate, develop leaves, and, what is truly remarkable, both flower and mature peas.

Nothing can be more easy than to ascertain the substances which the seed has gained or lost in the process of growth. We want nothing but a comparative analysis of the seed and produce; and M. Boussingault has determined by analysis the nature of the constituents and their proportion, both in the seeds and their produce; and these are his conclusions:—

The peas contained *before* vegetation—

Carbon . . .	51.5 parts
Hydrogen . .	5.9
Azote . . .	4.6
Oxygen . . .	44.0

106.0

The peas contained *after* vegetation—

Carbon . . .	237.6 parts.
Hydrogen . .	28.1
Azote . . .	10.1
Oxygen . . .	168.0

443.8

Everything counted, we find—

186.1 parts of fixed carbon.

5.5 " azote.

139.5 " water.

6.7 " hydrogen.

These results evidently demonstrate that peas, as well as some other vegetables, may traverse every stage in their growth, with no other nutrition than that derived from air and water. We would not, however, call this good agriculture, for the produce in these cases is extremely poor compared with that obtained from land well manured.

The phenomenon we have just described is a complicated one. Seeds and plants in growth present, in certain periods of their existence, certain modifications in their vital functions, and in the way in which they exist relatively to the air. To the quantity—so considerable already—of fixed principles we have noticed, we must add the not inconsiderable amount which has been dissipated after being momentarily fixed. But if the effect, apparently so simple, which I have just recorded be but the final result of a complex phenomenon, it does not the less conclusively establish the fixation of carbon, azote, and hydrogen, which takes place in vegetables; besides that of a certain quantity of hydrogen and oxygen which is



fixed in the shape of water, or in the proportions which form water.

It is not enough to have demonstrated that the fixation of the elements necessary for the sustenance of vegetable life may be secured through the intermediation of water alone; we should also endeavour to define accurately the principal source of these elements.

When we reflect on the enormous amount of carbon constantly fixed by vegetation, we are obliged to ask if it can be true, that, if not entirely, at least in great part, it can come from the decomposition of carbonic acid in the air? We know that ordinarily the air contains 4-10,000 of its volume, or 6-10,000 of its weight, of carbonic acid—and everything proves that this quantity is sufficient.

A very simple calculation will make this subject clear to us. Let us suppose the air compressed by a force that would give it the density of water. The column of air of this density would be about 10 mètres high; in this column the carbonic acid would form about 4 millimètres; and in reducing the carbonic acid to carbon, we should find that the quantity of carbonic acid existing in the air would be represented by a diamond varnish covering the earth with a coating about a third of a millimètre in thickness. The amount seems very small; but if we take into account the surface of the ocean, the polar regions, the deserts of sand, we shall find a sufficient explanation for a phenomenon, where there are, in addition be it said, an amount of monetary gains and losses.

The amount, too, of carbonic acid in the air may be increased by the torrents of carbonic acid exhaled by volcanoes. It tends also to maintain itself by the effects of combustion from our fires, by the respiration and decomposition of animals, by the nocturnal respiration and the destruction of plants—phenomena which give to the air considerable quantities of this gas. This amount, on the other hand, may be lessened by the diurnal respiration of vegetables. We may ask, then, has the present state of the atmosphere always existed, or has the atmosphere in remote times presented quite another composition?

M. Ad. Brogniart, proceeding on the conclusive data of geology, has calculated the composition of the air before the formation of the fields of coal.

He considers that France gives a tolerably accurate idea of the state of the coal fields of Europe, and probably of the whole globe.

It contains, according to his calculation, about 1-200 of coal fields, forming a layer of twenty mètres thickness. England and Belgium are richer in the mineral, but there are so many countries poorer that France may be regarded as a fair average example of all.

The whole earth resembling France in this particular, we should then have a layer of coal about the thickness of a decimètre over the surface of the whole globe. In changing this weight into carbonic acid—for it is certain that coal is formed from vegetable matter, which must have owed its carbon to the carbonic acid of the air—we may conclude, that before the formation of coal, the air must have contained, at least, from four to five per cent. of carbonic acid, and it is not improbable taking the outside even up to eight or ten per cent. The air, charged so highly with carbonic acid, is injurious, if not fatal, to warm-blooded animals, and fossil geology assures us that at this time no such animals existed. The experiments of M. de Saussure prove that vegetation is favoured by an atmosphere well charged with carbonic acid; and we know that, formerly, vegetation was considerably more active—a fact also attested by the singular development of recently-collected fossil remains.

But if there were few animals at this epoch—if indeed there were none—whence was derived the carbonic acid of the air, if not from those numberless volcanoes now extinct?

APOTHECARIES' HALL.—Admitted as a member, October 8.—Francis Paul Forge.

## A Course of Lectures on Diseases of the Skin.

By JAMES STARTIN, Esq., Surgeon to the London Cutaneous Institution.

### LECTURE XXVI.

#### ERYSIPELAS.

According to Willan and others.

GENUS.	SPECIES.
Erysipelas.	E. Phlegmonodes.
	E. Œdematodes.
	E. Gangrenosum.
	E. Erraticum.
	E. Infantile.

As proposed by Startin.

GENUS AND SPECIES.	DIVISIONS.	FORMS.
ERYSIPELAS.		
E. Phlegmonodes.	Locale.	Circumscriptum.
E. Traumaticum.		Diffusum.
E. Gangrenosum.	Pluri-locale.	Acutum.
E. Erraticum.		Chronicum.

*Erysipelas* constitutes the last chronic cutaneous disease, properly so called, which, to redeem the pledge given at the commencement of this course of lectures, must occupy a share of our attention; it consists, as is well known, in an eruptive inflammation of the skin which also implicates the cellular tissue, and, perhaps, is more frequently witnessed and better recognised than any other malady that has passed under our consideration which has a train of acute symptoms, and constitutional disorders for its usual accompaniments.

*Erysipelas* may be defined to be an extensive, sometimes epidemic, but non-contagious, eruptive inflammation of the dermis, and subjacent cellular tissue, which is attended by pyrexia, and a red or yellowish red colour of the diseased surface, without pulsation, or circumscribed tumour, yet with considerable swelling, and sometimes vesication. This disease is disposed to spread or change its place, commonly terminating in resolution and desquamation, yet occasionally in suppuration, and more rarely in gangrene.

To give anything like a complete account of a malady so varied in its manifestations and consequences, and so extensive in its nature, as the one comprehended in this definition, would, as must be obvious, require many lectures, rather than the brief space I have allotted for its consideration; but the fact is, that *erysipelas* may be regarded with equal propriety as a general or a local disease; and to consider it in the first-mentioned view would involve a treatise on inflammation and fever, as well as many points in therapeutics, and it was not my intention that these should enter into sketches devoted to chronic and specific diseases of the skin alone. I shall, therefore, but cursorily recapitulate the causes, symptoms, and treatment of this complaint, which is always particularized in courses of lectures, whether on medicine or surgery, as well as in all descriptions of inflammation, of which it constitutes the most frequent variety. Nearly every cutaneous disease may give rise to *erysipelas*, so that its occurrence has been regarded as one of the most frequent means adopted by nature when a spontaneous cure of these affections takes place,—the imitation of which cure I have constantly endeavoured to inculcate in the treatment recommended for the maladies which have passed in review before us. In addition to the irritation of the skin caused by other diseases in that part of the body, any cause exciting increased capillary action, local or general, may also produce *erysipelas*, as well as any cause giving rise to fever or inflammation; nevertheless, a certain nervous susceptibility, a bilious diathesis, a fineness or delicacy of the skin, a suppression of some customary evacuation, as of hemorrhoids, or of the menses, and the state of the atmosphere, must be regarded as sources very often influencing the appearance of the complaint under the excitement of the before-mentioned causes.

I have considered that *erysipelas* may be best described under four species, which mark the progress of the inflammation from which it springs; these are the same terms adopted by Willan, and named *E. phlegmonodes*, *E. traumaticum*, *E. gangrenosum*, and *E. erraticum*; each species may be subdivided,

according as it appears on one part or several parts, into locale, or pluri-locale; and their forms or varieties will be circumscriptum, diffusum, acutum, and chronicum.

I have omitted Willan's *E. œdematodes* from this arrangement, inasmuch as it was considered under the head of sclerema, as far as the chronic symptoms characterizing it might require; and its acute manifestations will refer those cases in which they are present to phlegmonous *erysipelas* *E. phlegmonodes acutum*. It can scarcely be required that I should detail at length the well-known appearance of this common disease, attacking, as it does, the face, neck, or one of the extremities after an access of feverish indisposition and bilious disorder, attended with shivering, and creeping or gnawing pain and uneasiness in the part about to be affected; which, for the most part, in the course of twenty-four hours, becomes more or less tamed, with redness and sometimes vesication on the surface. This swelling and eruption go on increasing for two or three days, when they begin to subside till about the seventh or eighth day from the appearance of the *erysipelas*, when the skin becomes shrivelled and yellowish, cracking in various places, and in a short time desquamates, leaving the new cuticle exposed, encrusted here and there with a brownish and dark scab, that marks the situations of the larger vesications. The progress of this disease is much the same, whether it arise from an injury (*E. traumaticum*) or from an internal disease: in the former case, however, it is commonly more severe, and is always much influenced by the age and temperament of the individual, the youthful and sanguine being the severest sufferers; in these cases it is very common for abscesses to form in those points where the inflammation has been most severe; and the cellular structure extending between and around the muscles may be implicated in these diseased actions, so as to furnish a truly formidable and dangerous disease, which may not only end fatally, but in cases of recovery may produce adhesions and disorganizations that occasion incurable lameness or disfigurement.

In these severer types of *erysipelas* the system is commonly affected with a fever of the typhoid character, attended with delirium or coma; and the eruption assumes a dark mahogany hue, which then refers the malady to the next species, *E. gangrenosum*, which commonly commences as the species before described, but from the violence of the inflammation, or the debilitated or broken constitution of the patient, or some other causes, which for the most part are very evident, it degenerates into a state of gangrene or sloughing—evidenced by the dark appearance of the eruption, covered here and there with large vesicles, filled with a purple these break and discharge, patches of slough, and bloody-looking serum, placed on a livid base. As gangrenous ulcers, appear in the place they occupied; and all the signs of malignant typhus are present in the constitution, not unfrequently attended with bilious diarrhoea and vomiting. The event of this train of symptoms—unless the most energetic measures are adopted, and these early in the disease—is speedy dissolution, or in less severe cases a slow, lingering convalescence, with incurable lesions of those parts concerned in motion that happen to be in the vicinity of the disease.

This species of *erysipelas* is occasionally seen in the children of crowded courts and alleys, or in the wards of hospitals, and forms a very fatal disease, which, from the vesication and general appearance, is not distinguishable from *rupia escharotica* before described, and to which I must refer you for the treatment required—identical for both diseases—if, indeed, you should deem that they deserve to be so considered, on the very slender distinctions that may be now and then manifest, and which consist chiefly in the greater extent of the inflammation in the *erysipelatos* affection.

*E. erraticum*, the name given on the chart to the third species of this disease, is usually a less severe disorder than those hitherto described, and it receives its designation from the circumstance of its being much more prone to change its place, though metastasis is, perhaps, one of the most distinctive marks of *erysipelatos* inflammation. *E. erraticum* for the



most part shows itself on the face or limbs, occupying a small surface, and after continuing a few days it removes to some other part of the body; the course of the absorbents sometimes appearing to direct it, at others the opposite side to that affected attracting it; whilst now and then no sort of connection can be traced between the points at which the complaint is manifested. In children I have occasionally witnessed suppuration as the consequence of these migrations, and then it becomes a serious disease; otherwise it is less to be dreaded than the other species of erysipelas, though its nature renders it a more lingering disorder. The descriptions I have now given of these three varieties of erysipelalous inflammation will demonstrate that no age or rank is exempt from their attacks; in our own day one royal duke, the former president of this institution (a), has fallen a victim to this disease, and not a week passes but an opportunity presents itself of witnessing its effects on members of the community; but it is not usually fatal, indeed, Sabatier, (b) fifteen years ago, published a quarto volume to prove that it was a curative affection in many diseases, particularly in chronic maladies of the skin; and I can assure you that I have had many opportunities of verifying that author's remarks. In the early days of my professional career Mr. Lawrence also published an octavo book on "The Nature and Treatment of Erysipelas," and also defended, in a speech sufficiently distinguished by satire of no playful kind, a paper read before the Medico-Chirurgical Society on the same subject, which has been since published in the 24th vol. of their Transactions. "Incisions of four or five inches in length," and sometimes on both sides of a limb, were advocated with all that author's well-known powers of rhetoric, for the cure of this disease; less severe measures were scouted as unworthy the sons of Galen. It happened that I obtained a public appointment soon after the powerful promulgation of this law; and that erysipelas was then epidemic in the wards of the Birmingham Town Infirmary. As the resident medical officer, much devolved upon me, and I had ample opportunity of testing the advantages of long incisions *versus* short ones, and tincture of bark. Six surgeons were attached to this infirmary, besides myself, and nearly all had different views on this important malady, so that my own practice constituted but a small integral portion of my experience. The long incisions lost several patients; the short ones, a few; the various treatment, a few; and one surgeon (the father of a provincial anatomical teacher of no mean eminence), who kept to Huxham's tincture of bark, the decoction of bark, and opiates, lost not a single case, though certainly more than the average number fell to his share. To say the least, this was good fortune, if not good treatment; but in the instance alluded to there can be no doubt it was the latter, for the patients were paupers, ill fed, ill nourished, and attenuated with daily and laborious occupations: and I beg you will observe that it is on this account that I relate this history, and not that you may indiscriminately follow any single plan of treatment in every case; but that in the young and plethoric you will employ the lancet and moderate incisions, if they should be called for by the violence or extent of the inflammation; in much constitutional disturbance and fever you may use febrifuges, colchicum, and calomel, with leeches, poultices, emollient or sedative applications to the local disease; and in the aged or debilitated, bark and opium, blisters to the parts affected, or mercurial or turpentine dressings as in burns from the actual application of fire. In slight cases, Higginbottom's mode of applying the lunar caustic, so as to environ or cover the diseased part, will seldom disappoint you, if brisk calomel purgation with colchicum accompany the practice; and I have substituted the strong tincture of iodine, the compound mercurial liniment (composed of oil, mercurial ointment, and liquor of ammonia), or nitric acid of half the Pharmacopœia strength, with, I think, increased advantages: they require using

sparingly, however; the parts affected being lightly brushed over with them from time to time.

In the very common slight erysipelalous affections of the face and eyelids, dusting the parts with hairpowder, and free purgation with sulphate of magnesia, carbonate of magnesia, and colchicum, will very constantly suffice for their speedy removal.

Although I have mentioned several causes which may produce erysipelas, yet it sometimes happens that it is impossible to assign a reason for its appearance; in which cases, atmospheric changes and the idiosyncrasy of the patient may influence its manifestation. Mental emotions also give rise to erysipelas, in common with nearly every other variety of cutaneous inflammation; and it has been held to be contagious; but my experience of *five or six years' public life* in those localities which alone are said to demonstrate this circumstance, viz., large and crowded hospitals, has failed to satisfy me on this point, or that it differs from any other epidemic.

I shall not detain you by a recapitulation of cases to illustrate this disease in its phlegmonous and gangrenous character, as books on medicine and surgery will detail, better than I can do, all that is necessary; their treatment being comprised in the exercise of the sound principles of our profession.

A light diet, well-ventilated apartments, the horizontal posture, and repose mental and bodily, are, nevertheless, most essential; and so much have these accessory circumstances to do with the case, that superstition and priestcraft have not failed to convert them to their own purposes, as instanced in the Abbey of St. Anthony, the last resting-place of the bones of the saint, to whose protection this disease, under the name of St. Anthony's fire, is, *par excellence*, assigned.

In that asylum, situated at Vienne, in the Alpine regions of Isère (the ancient Dauphiné)—where climate, water, air, spacious rooms, and a meagre diet are at the command of the invalid—erysipelas, it is said, cannot continue beyond the space of a week, without being ejected by the dead bones of the saint. This fact, which is uncontradicted, may teach us how much our success must depend on attention to these well-known but often overlooked therapeutic agents. Let us remember it, therefore, when treating *St. Anthony's fire*.

One variety of the disease under consideration yet remains, on which it may be necessary I should say a few words. About two years ago a most remarkable instance of this affection, *E. erraticum*, presented itself to my notice; and, as the complaint may be more deservedly considered a chronic disease of the skin, I will succinctly relate it. The patient was a child of three months old, and vaccination was the assigned cause for its origin. It was the most extraordinary recovery I ever recollect to have witnessed, even in cases where the vital powers have such well-known tenacity. The infant was the son of parents of the name of Hoare, residing in Rahere-street, Goswell-street, and exercising the craft of tailors. About the fifth day after vaccination, which was performed by Dr. Epps, at the Institution in Holborn, *erysipelas erraticum* manifested itself in the neighbourhood of the punctures; and the inflammation was so violent that suppuration took place and was discharged by incision, and the healing process commenced, when the opposite arm became similarly affected, which went through the same course, a small teacup full of matter being evacuated; the legs next became similarly affected, then the head, then different parts of the trunk, then the hands and feet, until *thirty-two abscesses* had formed, which contained an average of more than one ounce of pus each, each formation remaining open a week or thereabouts, so that the complaint lingered through three months, at the end of which time the child's health was restored; and the little boy now lives to prove the efficacy of short incisions and sulphate of iron in small doses, to which, and the devoted attention of a mother, his recovery is undoubtedly to be attributed.

I have now, gentlemen, brought this first series of lectures on chronic diseases of the skin to a conclusion. It was my original intention to have included the modifications occasioned by syphilis and

serofula in the affections which I have endeavoured not only to portray but to render familiar, and so far interesting as to claim a place in your remembrance and prove of practical utility.

Ulcers, which would have comprehended a consideration of *cancer, lupus, elephantiasis*, and perchance *scorbutus* (diseases of which I have not yet made mention), and also an account of *tumours and marks on the skin*, would then have concluded this course; but I find the want of models will not allow me to do that justice to these parts of my subject that the kind attention you have on all occasions paid to my remarks has a right to demand.

During the spring and summer, I hope to collect such materials as will render a second course of lectures on these additional subjects worthy of your attention; the path, as yet, is comparatively untrodden, nevertheless the numerous attendance of such cases here will not fail to enable me to place a collection of facts before you that may occasion your not deeming the time misspent, by continuing the weekly attendance you have honoured me with during the past six months.

## ORIGINAL CONTRIBUTIONS.

### ON A MODE OF PERMANENTLY CURING ULCERS ON THE LOWER EXTREMITIES WITH SAFETY TO THE CONSTITUTION, AND WITHOUT THE NECESSITY OF REST.

By W. R. GORE, Esq.,  
Surgeon to the City of Limerick Infirmary.

After an experience of fifteen years in some hundred cases of ulceration of the extremities, I desire to place the following observations before the profession, on a subject of such great importance to a vast number of human beings. The disease to which they have reference is of very common occurrence, and the opportunities of testing the value of the plan are within the reach of almost every practitioner. I have for years hesitated to publish the result of the first few years' experience which I had of its efficacy, from a desire to allow time to test its value, and to mature whatever results might become general principles in regard to it, and the collateral treatment which might arise out of its adoption.

In 1830 I was called upon to "dry up" a varicose ulcer in an elderly lady, to whom it had become a complete nuisance; it had been in existence for nine years, and for reasons of a peculiar nature she determined, under all circumstances, to have it healed if possible. On consideration I resolved to attempt the cure by ordinary means—adhesive straps, equal pressure, and rest. To protect her against the consequences of "drying up" a discharge to which her constitution had been so long accustomed, I placed a caustic issue under the knee between the head of the fibula and the tibia anteriorly. After the second day I could not keep her from the drawing-room, or from fidgeting about, as her habit was, all day. Contrary to all expectation, this ulcer was perfectly healed in twenty-five days from the insertion of the issue. The first two days I poulticed both. The original sore was subsequently treated with adhesive straps and bandaging, and a pea inserted in the issue, which was kept open for five months after the healing of the ulcer. Until her death, which occurred about four years since, she never had the least return of the ulceration. She always continued to wear a tight ribbed stocking on the leg; great diminution of the veins followed.

This interesting case convinced me that the counter discharge of the issue was the true cause by which to explain the rapidity and permanency of the cure, aided subsequently by pressure on the veins—which, however, had no effect as a curative agent previously to the insertion of that issue.

I determined immediately to adopt the insertion of an issue in the situation referred to, as a *principle of cure* in all ulcers of the lower extremities which appeared to call for such a mode of practice, leaving its effect in the protection of the constitution from ulterior consequences to be involved as a *secondary consideration*. I did not meet with an opportunity until the following year, 1831, when, being at Killaloe in company with the late Dr.

(a) H. R. H. the Duke of Sussex.

(b) Sabatier, "Propositions sur l'Erysipèle, &c." Paris, 4to., 1831.



bodied men are confined to bed, incapable of rising and moving about as in a state of health. Their ailments, however, are totally different in character. One has been taken ill thus:—listlessness and unwillingness, as well as incapacity, for active movements have come upon him; he has felt cold, amounting occasionally even to shivering; he has had pain in his head, back, and loins, and perhaps in his limbs too; his appetite has failed; he has had nausea, probably some sickness; his mouth has become dry and parched, and the tongue covered with a brown crust; his intellectual and bodily powers have ceased to be under control; he has, without any apparent or known cause, fallen into this condition within a few days. The state, gentlemen, is that familiarly known as fever. In the other instance the patient has met with some accident, which has caused the fracture of one or more of the bones in his lower limb. Whilst the fragments are severed the person is unable to move about without incurring great pain and risk; he is confined to bed and on his back for many weeks, and the injured parts are kept in their natural position by proper appliances. He has no bodily ailment, excepting on the seat of injury; he has neither heat nor cold, his appetite is excellent, and, probably, in the course of ten or fifteen days his only complaint is, that his medical attendant will not relieve him from his restrained position. The condition of the patient is familiarly known as that resulting from a broken leg, and the cause of his temporary indisposition is perceptible and tangible.

In the one the system is under some mysterious influence, and professional skill can scarcely dictate in what manner the malady is to be combated; whatever agent is employed must be conveyed, by the stomach, through the system, as it were; while in the other example the patient's inability to walk arises from an evident cause—a mechanical defect—which defect, it is known, Nature will herself repair in due time, and which chiefly requires, on the part of the professional attendant, a certain amount of mechanical skill. I need hardly state, gentlemen, that the case of fever belongs to the department of medicine, and that of the broken bone to surgery. The one, to speak in a general manner, seems to be amenable to physic only, while the other demands the work of the hand. These examples are as strongly indicative of the differences between these two departments of the profession as any I could bring forward, yet it would be very wrong to suppose that physic and surgery are so widely apart in all other respects; on the contrary, the alliance between the two is so close and so necessary that the one cannot with propriety be severed from the other; and even in these very cases which I have adduced as illustrations, a combined knowledge and application of both physic and surgery are required for their safe and successful treatment. Thus, in the fever, bloodletting is often deemed advisable; in whatever way the operation is performed it is unquestionably of a surgical nature; blisters may be required; possibly portions of the skin may die, and poultices may be necessary; in every stage of the disease the aid of surgery is almost indispensable. And so, in the case of fracture, the patient may have considerable fever within a few days of the receipt of the injury. Some violent inflammation may be induced in the damaged parts or elsewhere; perhaps in the progress of treatment hectic fever may come on; in all instances the diet must be regulated, and a little medicine internally will seldom be amiss: all of which features, you perceive, are part of the province of physic. If, then, the two departments are so closely allied in such cases as those just cited, you need not be told that their affinity is wonderfully greater in many other forms of injury and disease. In fact, gentlemen, the one is so dependent on the other that it answers no good purpose to draw particular distinctions between them—at least in so far as regards your present position, and while you are engaged in acquiring a knowledge of the elements of the medical profession.

Nevertheless the field of medicine is so extensive that, for the sake of convenience and perfection, it is customary to allot different portions of it to

separate teachers, whereby a greater amount of wholesome knowledge is brought before the student than could reasonably be expected from a single party who should attempt to teach the whole range of the profession. Indeed this view is followed out most extensively in practice: for in all large communities there are individuals who devote their whole attention to one department of the profession alone, and in such capacity there is ample scope for the highest professional talent. From this custom it results that certain parties attain a greater knowledge of peculiar diseases than others do, and hence the faith which both the profession and public have in such individuals—hence the physician, the surgeon, the accoucheur, the oculist, dentist, aurist, and other divisions and subdivisions. I need hardly tell you, gentlemen, that the teachers of medicine are usually selected from that department in which they have acquired experience and reputation; and thus the beginner, in passing through the curriculum of study, has the advantage of what may be deemed the highest amount of useful knowledge laid before him, as the basis of his own future improvements. I believe you are all aware, that ere you can present yourselves for examination before the legally-qualified boards, as to your proficiency as medical men, you must show proof that you have been many years engaged in the acquisition of knowledge on most or all of the topics pertaining to the profession. You are tested by examination in each department, and must be found competent therein, before you can obtain your license to practise; and from all this you may perceive that, whether you wish to bear the title of physician or surgeon, the requisite amount of study embraces many varied subjects.

By universal consent among medical men, there are certain subjects peculiarly allotted to physicians and surgeons; and it is my duty here, in the latter capacity, to draw your attention to such as belong to the province of surgery. I have to teach you what in common language we call the principles and practice, or what some call the theory and practice, of surgery; and at starting I deem it proper to caution you, lest you expect more from the lectures which are to follow, than either their nature or the circumstances will admit of.

He who supposes that the principles and practice of surgery can be taught in a course of seventy lectures takes but a limited view of this branch of medicine. The practice of surgery might indeed be taught in this way, in as far as lectures are available for such information; but in my estimation the principles on which a knowledge of disease and practice is founded are far too extensive to be embraced in such prelections. You must not, however, imagine that your opportunities for learning those principles are more limited here than elsewhere; the scope is as ample as, or even more so than, in most other teaching establishments. I wish you to observe and understand that the principles of medicine (and here I may include physic, properly so called), surgery, and midwifery are mainly taught and acquired in other lectures than those on each special department.

For what are you now taught anatomy and physiology, chemistry and materia medica, in the first years of your professional studies? Chiefly that you may apply the knowledge thus obtained to practical purposes. As physicians you are not required to practise anatomy on the living body; but it is essential that you should know what materials constitute the different parts of the human frame; that you should know the physical qualities and the functions of each organ of which the body is composed; that you should know how the whole frame is made, and what constitutes life and health. As surgeons, the practice of anatomy, if I may so express myself, is but rarely required, for operations form a small portion of the surgeon's duties; but how, I would ask, is he to appreciate the nature of a wound, of a dislocation, or a fracture—how is he, in a scientific manner, to distinguish the features of individual diseases, and to make out those nice characteristics peculiar to each—unless by a knowledge of the healthy anatomy and configuration of the body? Anatomy and physiology, chemistry and materia medica,

are all then, in my estimation, component parts of the principles of both medicine and surgery; and with all of these you are presumed to be more or less familiar before you are required to attend lectures on the practice of medicine or of surgery.

Such principles, then, I need not, as your teacher of surgery, do more than allude to, although I shall take every fitting opportunity to inculcate their value and importance. But here I shall express a hope that you may have studied them well before thus engaging in surgery, strictly so called.

Such principles as are not comprehended in the subjects above alluded to it is my peculiar duty to teach; and these, with the description of surgical diseases and injuries, constitute a theme so ample that my powers of teaching will be fully tested ere the close of our course.

Each of the teachers here feels, I doubt not, that all the usual time of a session is barely sufficient to enable him to accomplish his allotted duties; and, being myself fully sensible of how much is before us in the department of surgery, I shall be as brief on what may be deemed preliminary topics as one can well be on such an occasion as the present. I well remember, though many long and anxious years have since passed away, with what ardour and enthusiasm some of my own teachers pursued their daily toil; it seemed as if their sole object in life was to teach their own department; they appeared to know nothing more attractive or exciting; it was, as it were, all in all in the profession; without it a student knew nothing; there was no chance for him in the after push of life. So the anatomist taught, so the physiologist; thus did the chemist attract his auditory, and thus also acted the physician and the surgeon: each held his own department pre-eminently valuable, and a stranger might naturally have imagined that all useful medical science and knowledge was in reality centred in one such party, and the course which he was delivering. Now, gentlemen, there was both fallacy and truth here: the fallacy was of the most amiable character; the truth was good for the parties who listened. As you may have gathered from remarks already made in this address, the single subject is absolutely requisite to make up the entire whole; and the more that a student could be impressed with the idea that the particular course attended was of paramount importance, the more likely was it that he would, in the progress of his studies, acquire that degree of proficiency which his teachers so much desired. I doubt if any one can be a good and successful teacher who does not possess or, at all events, seem to possess that kind of enthusiasm to which I allude. He may have it, and show it too, without disparagement to other branches than that which he superintends; and, for my own part, I should hold my duties as comparatively easy were I fortunate enough to impress you with the latter views towards myself. Gentlemen, I shall yield to no one in enthusiasm for surgery. I may fail, perhaps, to show it; I may fail to convince you that I have it; I may not succeed in rousing any unwonted zeal on your part: but I shall not be the less sincere in my endeavours to satisfy you that the department is useful, manly, and noble in character. Can you think otherwise when you are told that the first person who performed the operation of venesection—a proceeding with which, doubtless, even the youngest of you must be quite familiar—gained the hand of a king's daughter as the reward of his skill? Can what I have said be doubted when we know that the presence of the celebrated surgeon, Ambrose Paré, with an army, was sufficient to encourage the troops to encounter all hazards and hardships, and to damp the ardour of the opposing army? But I must not dilate on such topics, for I sincerely trust that what you have already seen in the profession, and what you will learn during the present session, will be sufficient to convince you that there is no occupation in life more worthy of your entire devotion than that on which you are now about to engage.

It is but natural that you should look to me for some preliminary directions as to how you can best attain proficiency in surgery; but, as this will constitute the greater part of my duties throughout the session, I can only take a brief glance at the subject on such an occasion as this. You do not



require to be told that surgery, in the modern acceptance of the term, is both a science and an art; the true application of surgery is no longer confined to the mere "work of the hand," as the etymology of the word implies; but, that the art may be carried to its utmost perfection, the head of the practitioner must be constantly at work: sometimes devising means whereby manual interference may be unnecessary, at others simplifying and rendering more certain and efficient those mechanical appliances which must ever be requisite in practice. The art of surgery may be said to be purely mechanical; and instinct alone will render one person more cunning of hand than another: hence the success of the uneducated bonesetter; but so much of surgery is altogether independent of manual skill that no one in the present day can be permitted to bear the title of surgeon who does not possess a certain amount of that kind of knowledge which is thus absolutely necessary. It is this knowledge which in a manner constitutes the science of surgery, and it is barely possible to move a step in the right direction without it.

Let me illustrate what we mean by the science and art of surgery by certain practical allusions. In former times, if a limb were affected with some incurable disease, the surgeon left the patient to his fate, or conducted the further treatment with fear and uncertainty. He felt that, if the part were entirely removed, health might be restored; but he knew that an incision into the limb would be followed by such a bleeding as he could not well control. He was aware that the limb was full of blood, but how it circulated, or whether it moved at all, he was uncertain. Some, to avoid the danger, had the wound made by the cutting instrument plunged into boiling pitch; others fancied they improved upon this practice by cutting the textures with a red-hot knife, which seared and closed the vessels in its course; while others, again, imagined that the operation was rendered perfect in all points by the method of gradually tightening a cord round the limb until it should drop off. If the operation were accomplished by any speedy cutting process the patient was in imminent danger from bleeding; and I think you will agree with me that the danger, though of a different kind, was not less by this slower method with the cord. Now, anatomy and physiology taught the position of the main bloodvessels, and the nature and course of the circulation. By a very simple mechanical contrivance, the tourniquet, applied on the limb between the heart and the intended incisions, the surgeon could command the circulation during the necessary proceedings, and by the use of a thread he could close the end of each artery, and save the patient from all immediate risk of bleeding to death. And now so confident is the operator of the precision and certainty of his movements, that instead of refusing from dread of hemorrhage to perform an amputation in the forearm—as was done by one of the most celebrated of ancient surgeons—he proceeds with scientific self-possession to remove a limb, even at the shoulder or hip joint, if unfortunately the circumstances render such dreadful operations necessary. Here, I think, we may trace the perfection of art to the development of science. As another example, I may call your attention to this cast, and also this preparation of an aneurism, connected with one of the largest arteries of the body—the innominate. Doubtless, you all know that such a bag as this contains fluid blood chiefly, and that, if it be once permitted to escape, immediate death is the result. Now, I have known such a tumour mistaken by a quack for a common abscess, to which poultices were recommended, with the object of bringing the matter to a head before using the lancet! Again, you observe this cast, which is intended to show the deformity resulting from the advanced stage of hip disease. A dislocation of the head of the femur has taken place in the progress of the malady, and, in some respects, there is resemblance to a displacement resulting from violence; yet there are numerous striking differences which may at once be appreciated by any one who has been educated to the profession. I have known an unfortunate sufferer in this condition subjected, by a charlatan, to the useless process for reducing a luxation—I

need not say with what mischievous effect; for the disease is one in the treatment of which we expect the greatest amount of benefit from absolute quietude. Many similar mistakes—the result of ignorance—might be cited, but these will suffice for present purposes; and I need only add, that at every step we move we shall find how much the mere art of our profession depends upon preliminary and collateral information; and such information, gentlemen, may, I repeat, be said to constitute the science of surgery.

Those among you who have devoted a proper share of attention to your first and second year's lectures and studies will be best able to appreciate those special principles of surgery which it will be my duty to teach; and for the application of such principles to the practice of surgery you must give your attention both in the lecture-room and in the hospital. It is in the latter place chiefly that a knowledge of the practice of the profession is to be usefully acquired; and I recommend you most strongly to keep a watchful eye and open ear upon everything that goes forward there.

It is allowed by all that a knowledge of anatomy is indispensable to the surgeon; and, without wishing you to neglect any of your studies, I should say that, throughout the whole of your professional education, a large proportion of your time should be spent in dissection. You will thus acquire a far more useful knowledge of the human frame than by listening to demonstration alone; and you must remark this, too, that the very movement of your hands and fingers in guiding the instruments you use in dissection will greatly facilitate those manipulations which are absolutely requisite in the ordinary practice of your profession. Thus, by these dissections, by performing operations on the dead body, and by dressing sores, applying bandages, and otherwise, as opportunities occur—exercising the craft on the living body—you learn the art of surgery.

By regular attendance on lectures, by assiduous devotion in the dissecting-rooms, and by continued observation in the hospital, you will become well fitted to undertake the responsibilities of the surgeon. But, with all this, you must devote some time in private to the perusal of such works as may be said to embrace the whole scope of the principles and practice of surgery.

The student is but too apt to imagine that the chief object of his attendance on lectures, and at the hospital, is to enable him to pass his examination at Hall or College. But let me entreat you, gentlemen, to cast aside the notion—if, indeed, any of you entertain it. Your aim should be of a much higher character; your object of ambition should be, and doubtless will be, to acquire a thorough practical knowledge of your profession, whereby you may become useful members of society, and ornaments to that path in life which you have chosen for yourselves.

### A Course of Lectures on Hernia,

By JOHN FLINT SOUTH, Esq.,

Surgeon to St. Thomas's Hospital, and Professor of Surgery to the Royal College of Surgeons.  
(Delivered in the Theatre of the College, and revised by the Professor for the MEDICAL TIMES.)

#### LECTURE VI.

#### OPERATION FOR STRANGULATED FEMORAL RUPTURE.

(Continued from p. 461, vol. xv.)

*Operation for Femoral Rupture—Mode of Incision—Superficial Fascia—Fascia propria—Sac—Examination of the Bowels—Division of the Stricture—Different Modes of dividing the Stricture—Sir Astley Cooper's Advice—Mr. Lawrence's Opinion—Other Opinions on this Subject—Mr. Pott's Advice—Seat of the Stricture—Operation without opening the Sac.*

In operating on a strangulated femoral rupture, the ordinary practice is to make a reversed T-shaped cut upon the swelling, the horizontal part of which shall cross the middle, or a little below the middle, of the sac; this is preferable to a simple transverse cut, as it allows a pair of small flaps of skin to be made, and thus gives

ample room to get at and into the sac with readiness. The superficial fascia is then divided in the same way, which not unfrequently exposes a gland or two, that must be cautiously turned aside to reach the fascia propria, either upon or within the layers of which (Mr. Key says the latter) there is occasionally found a mass of fat which, without caution, may be mistaken for omentum. The fascia propria is now opened, and the true rupture sac laid bare. This is generally thin, and so slightly connected by cellular tissue that with little effort it may be raised out of its bed, so as to render its mistake for the bowel impossible. The rupture sac is now to be carefully scratched open; a little fluid escapes, but not always, and the bowel appears either gut or omentum, or both, and sometimes, as in the cases mentioned by Hewitt, the omentum so surrounds the gut, or is so hollowed as to receive and enclose it, as it were, in a sac of fat. As a general rule I think it will be found that the superficial fascia is more loaded with fat, and, consequently, thicker than in inguinal ruptures, but the fascia propria and rupture sac are comparatively thin.

The sac having been opened, and the protruded bowel carefully examined, the surgeon proceeds to find the stricture, which, in consequence of the rupture at first resting in the hollow of the thigh, and the mouth of the sac being at its hinder outer part, is always far from the surface, and, therefore, the division is more difficult, and requires more caution than even in inguinal rupture. Here, also, it is best, if possible, to get ever so small a part of the finger into the aperture so as to introduce the hernia knife beneath the stricture, for its depth renders the use of the director still more dangerous; if, however, the finger cannot be at all insinuated, then the director must be used, and the division of the stricture made upwards and a little inwards, according to Sir Astley Cooper's direction. This mode of dividing the stricture cannot endanger the spermatic cord, as, under ordinary circumstances, it is more than half an inch distant, and the division of the stricture has never, in any case which I have operated on or seen operated on, been required to such an extent. Mr. Lawrence, however, considers "the best and safest method of executing this part of the operation to be that of dividing the thin posterior border of the crural arch near to its insertion into the pubes" (p. 507); in other words, division inwards of Gimbernat's ligament. One or other of these is the mode which most surgeons in this country have adopted. For myself, having begun with Sir Astley Cooper's method, and having found it answer the requisite purpose without danger, I am still disposed to persist in its employment and to advise its use.

Mr. Pott does not seem to have been at all desirous of dividing the stricture. He says, after "the portion of intestine has been denuded, it is well worth while to try if it cannot be returned without dividing the tendon, as there is a considerable space between the os ilium and the os pubis to manage such reduction in, and as the division of the tendon is not always, in this kind of rupture, so safely executed; in this there are two parts of consequence, which lie very little out of the way of the knife, and which an operator should avoid wounding: these are the epigastric artery and the spermatic cord. If the division of the ligament be made directly upward, the spermatic cord will certainly be divided; and if, to avoid that, the knife be carried very obliquely towards the os ilii, the artery will meet with the same fate; and, indeed, if the incision of the ligament be made of any length, let it be made in whatever part it may, the risk will be great of wounding one of the parts just mentioned, as will appear to anybody who will examine them *in situ naturali*, and make a proper allowance for the pressure and distention of the hernial sac" (P. 153.) "If," he, however, concludes, "the division of the ligament be unavoidable, let the operator be particularly careful to keep the extremity of the probe-pointed knife within the end of the fore-finger, held up tight just behind the edge or



more conscious. V.s. ad 3vij; much less fulness of pulse after bleeding.

2. Pulse has not regained its former fulness; he has remained in a half-insensible state, but able to answer when spoken to; there is still some oozing from the ear; he is vomiting bilious matter.

3 P.M. He can now be roused much more easily; strabismus nearly gone; bowels have not acted.

R. Haust. sennæ, 3jss. statim.

3. 10 A.M. Bowels have been well opened; has slept a little during the night; there is still slight oozing from the ear, but the sickness has stopped and the strabismus disappeared; he is now sensible, and complains of severe pain in the head; pulse 88, regular. Head to be shaved and cold water applied.

1 P.M. Says the pain is entirely on the left side of his head; he has some expectoration, which is slightly tinged with blood; there is some pain in the loins, which are slightly bruised.

4. Has slept a little during the night; seems more cheerful; bowels have been opened; tongue dry; pulse 90, weak; still complains of pain in the left side of the head. Fever diet.

R. Hydrargyri chloridi, gr. ij.; pulv., opii, gr. 4. 4tis horis.

5. Not so much pain in the head; pulse 84, soft; head feels cool; bowels open. Beef-tea, o.

6. Was troubled with diarrhoea during the night, for which he took the following:—

R. Haust. rhei, 3jss.; tinct. opii, m. x.

This stopped the diarrhoea. The gums are beginning to be affected. Intermit pills. Less pain in head; wound in forehead is now painful, and does not look so healthy as it did; pulse 88, sharper.

7. Sleeps well at night; pulse 80, soft; bowels open; less pain in head.

8. Pulse 84, rather hard; wound looking more healthy; bowels not open.

R. Haust. sennæ, 3jss. statim.

9. Wound looks well, and the discharge is healthy; sleeps well at night; pulse 72, natural; tongue moist; bowels open.

10. Pain in the head very much decreased; tongue clean; bowels open; pulse natural. Broth diet.

11. Wound granulating; tongue clean; appetite good. Milk, Oj.

12. Pulse 70, fuller than usual; tongue clean; bowels open; wound healthy; sleeps well.

13. Pulse natural; wound healthy; tongue clean; very little pain in head.

15. Wound granulating nicely; tongue moist; appetite good; bowels open; a little serous discharge is now appearing from left ear.

17. Wound healing; appetite good; tongue clean; bowels open; had double vision last night; could see the flame of a candle double, when both his eyes were open, but could see distinctly with either of them singly, one being closed.

18. Still some pain in head; has had no more double vision; appetite good; tongue moist.

19. Bowels confined.

R. Haust. sennæ, 3jss. statim.

22. Improving, but still has a dull pain in the left side of the head.

23. Getting stronger. To get up for an hour.

27. Says that there is more pain in his head, and that he cannot see things distinctly with both eyes; there was a slight discharge of blood from the left ear this morning.

R. Spirit. ammon. c. 3ss.; tinct. calumbæ, 3j; mist. camphoræ, 3jss. statim.

28. Pain in the head better; feels stronger; had a good night.

30. Pain in the head rather worse; tongue rather foul; pulse quick.

R. Hydrargyri chloridi, gr. iij.; pulv. opii, gr. 4. statim; haust. sennæ, mist. camphoræ, aa. 3vj. postea.

February 2. Very little pain in the head; feels stronger.

6. Improving; no pain; feels stronger.

10. Appears better, but seems inclined to make the most of his complaints, which inclination he seems to have possessed for some little time past.

17. Made out-patient.

CASE 3.—John Salter, aged 14. Admitted July 25th, 1845, at a quarter past five P.M., under Mr. Keate.

There is considerable ecchymosis over the right parietal bone, and also over and around the right eye; there is perfect insensibility and paralysis of limbs; but the pupils act on the application of light; there is protrusion of the globe of the right eye, probably from effusion into the orbit; pulse of good volume, but subject to variety, sometimes becoming extremely weak. It is reported that he has had slight bleeding from the nose, and that he had vomited before admission.

He was thrown from a horse and fell on his head half an hour before he was admitted.

He soon recovered from his state of paralysis, and turned in bed; he was sensible when his face was touched; pushing the hand away.

Twenty-five minutes after one P.M. Vomited some meat and potatoes, but still remained perfectly insensible.

Six P.M. Rather restless; bedchamber with which he was propped up, obliged to be removed in consequence; pulse irregular.

Seven P.M. Became very restless; was seized with convulsions and died in a moment.

SECTIO CADAVERIS.

Body well formed and in good condition; extensive ecchymosis of right eye; large cicatrices about the neck, apparently connected with scrofula.

*Cranium*.—The bones of the skull at the upper and back part of the right side were extensively deprived of their periosteum, a large quantity of blood being effused in the neighbourhood, but principally in the parts above the periosteum. The right parietal, about two inches above the temporal bone, and at the union of the two anterior thirds to the posterior third of its length, presented a fracture, with a slight depression of the fragments, which passed perpendicularly downwards towards the temporo-parietal suture, a little above which it changed its direction and passed obliquely forwards into the fronto-parietal suture, whence it was traced into the orbital plate of the frontal. Another line of fracture was traced through the body of the sphenoid, and terminated in the great wing on the left side, one branch of it running into the foramen ovale and the other into the foramen lacerum orbitale. In this line of fractures a large quantity of blood had been extravasated, both on the outside and inside of the skull; the temporal muscle was filled with blood, and also the orbit, and a large cake of coagulated blood was found between the bone and the dura mater, especially in the parietal region, where several branches of the middle meningeal artery had been torn across. Extravasated blood was also found within the cavity of the arachnoid, which had proceeded from extensive lacerations of the brain, with rupture of its membranes. Of the principal lacerations one was situated on the lateral surface of the right middle lobe, the latter being much more extensive than the former. Several smaller lacerations were found in various parts of the brain, but they were all very superficial. The substance of the brain in the immediate neighbourhood of these lacerations was extensively bruised. The cerebellum was uninjured; lungs healthy, with the exception of being towards their posterior part loaded with frothy serum. Heart not examined. The abdominal viscera were healthy, but several of the mesenteric glands were very much enlarged by the deposition of scrofulous matter, which in some was mixed with cretaceous deposit.

CASE 4.—Henry Lacey, aged 25, labourer. Admitted Sept. 8, 1845. Under Mr. Cutler.

Twelve noon. There is a lacerated scalp wound in the vertex, exactly in the median line, about the middle of the sagittal suture; bone exposed to about the size of half a crown. There is a smaller wound on the left side; bone not exposed. Has had bleeding from the nose, which still continues.

An iron pipe fell from a height of about forty feet on his head, having had its force broken during its descent; he was stunned for several minutes, but was perfectly sensible on admission, about half an hour after the accident.

He complains of great pain and stiffness of neck about the thyroid cartilage; there is no perceptible

injury in this situation. Pulse 92, small; pupils natural.

One P.M. Pulse 92, a little stronger, and regular; pupils natural.

R. Hydrarg. chlorid., gr. v. statim. Water dressing.

Half-past one P.M. He has vomited since one o'clock, and has just taken the calomel; this was retained in the stomach.

Ten P.M. Much the same. Rep. hyd. chlorid. gr. v.

9. Pulse 84, good strength; bowels have acted well; tongue clean and moist; wounds appear healthy.

Ten P.M. Slightly feverish; pulse of good strength; some pain in head; v.s. ad 3xij.; pulse much softer after bleeding.

R. Tinct. opii, m. xx.; haust. piment., 3jss. statim.

10. Less pain in back part of head; pulse 84; tongue clean.

11. Less pain in throat; pulse natural; pain in head diminished.

12. Better; slept well last night; less pain; the small wound has healed by the first intention; the other is looking healthy.

R. Haust. sennæ, 3jss. Catap. panis.

13. Pain very much diminished; wound healthy.

15. Wound granulating nicely; pulse natural; no pain in head.

R. Haust. sennæ, 3jss. statim.

18. No pain; pulse natural; wound cicatrizing at edges; granulating in centre. To get up.

R. Mist. gentianæ c. 3jss. ter die.

23. Much better; improving rapidly.

24. Wound healthy in appearance, and healing; bone quite covered. Water dressing.

25. Had shivering this morning; pulse 120; skin hot; complains of pain in the head; has felt sick.

26. Has had shivering again, not followed by perspiration.

R. Pil. hydrarg. chlorid., gr. iij. stat.; haust. rhei, 3jss. post. hor. iij.; haust. salini, 3jss. 4tis horis.

27. Complains of severe pain in the head; has had more shivering, and has been sick; pulse 108; tongue coated; is very drowsy; sweats at night; complains of thirst; has no appetite.

R. Hyd. chlorid., gr. v. stat.

28. Wound looks unhealthy; scalp around is red and puffy; incision made in scalp, no pus escaped; was delirious in the night; feels sick and is in a half-comatose state; sweats a good deal; pulse 132.

Adde sing. haust. pulv. ipecac. c., gr. ij.

R. Hyd. chlorid., gr. ij.; opii, gr. 4.

29. Right side hemiplegic, is more comatose, and all the symptoms have increased; incision made in scalp, matter escaped.

30. There is an ichorous discharge from the wound; more puffiness of scalp; breathes hard; pulse 112.

Half-past two P.M. Two pieces of bone removed with the trephine from the centre of the sagittal suture; there was some pus between the layers of bone, and a little beneath it; after the operation the pupils became more sensible; convulsive twitches continued; pulse 132.

Eight P.M. Has less convulsive twitches, but cannot move his arm better; breathes more easily; seems to sleep more comfortably; has not spoken since the operation.

Oct. 1. Slept well last night; has had no more shivering or twitches; pulse 124; cannot move his arm better; lies in a comatose state, and takes no nourishment.

2. Died at eight A.M.

SECTIO CADAVERIS.

*Cranium*.—At the central part at the top of the head was a large crucial wound made for the application of the trephine; the integuments in the neighbourhood of this wound were somewhat puffy and easily detached from the bone; the bones of the skull were remarkably thick and solid, and both parietal bones contained in the diploe a quantity of yellow recently-effused lymph, which was principally confined to the neighbourhood of the opening made by the trephine; this instrument was applied immediately over the parietal suture at the middle



## THE MEDICAL TIMES.

SATURDAY, OCTOBER 17, 1846.

Hinc mens animusque  
Fert et amat spatii obstantia rumpere claustra.

HORACE.

MR. ERASMUS WILSON, the medical oracle of the inquest at Hounslow, has the honour of teaching physiology to such pupils as (in the verdancy of primal sessionship) may have entered to him in the Middlesex Hospital School. He is to be excluded from the hospital—but may teach in the school. Well, we are glad of it. Wilsonian physiology is so rare a thing of its kind that it is wisely deemed worthy of propagation. Understood, indeed, by contraries, it is no intolerable help to correct principles. The happy world of 1850, therefore, will have some half dozen disciples, as useful *beacons* in the ocean of medical science, and as able to steer courses in the successful exploration of new discoveries to suit a friend's emergencies, as their preceptor in 1846. We shall have preserved—shall we say in *integrity*?—the great sect of Wilsonites—i.e., dissenters in physiology, nonconformists in general anatomy—gentlemen as useful in the region of physic as the posts marked “dangerous” in the world of skating.

As a co-proprietor of the school, Mr. Wilson has an undoubted right to teach what he pleases; and as a British subject, is free from any necessity of teaching what he does not know. The law is quite in his favour. The statute about money got under false pretences by no means touches the case. Science does not oblige her followers to believe what they cannot comprehend, or teach what they do not understand; and empiricism is, at least, as liberal. A new discovery is surely an allowable substitute for an old fact, and to reach remote generalizations unaided by data is no crime by act of Parliament. A first year's pupil must be precocious if he find himself more right than his teacher; and if the youth, against all obstacles, do go ahead, why then the old proverb has provided for “the hindmost.” At all events the neophyte may take lessons *ad lib.* in practical patience. Wilson will be a teacher to him not less of the virtues, than of the sciences. Certainly not less. The pupil, remembering this, will be consoled, or will over-estimate his losses.

But though agreeing with Mr. Wilson in his absolute and indefeasible right, in common with any other British subject, to teach general anatomy and physiology, and, what is more than that, his views on those subjects; nay, while thinking it little short of an iniquity in his colleagues to aim at the breaking up the school, rather than suffer the formidable contingency of his aid;—we cannot so far carry our kindness to the learned discoverer as to assert that the Governor of the Hospital has exercised an illegal discretion in excluding him from its surgeonship. New discoveries are all very excellent on the dead subject, but on an hospital patient they might be less brilliant. There is such a levelling power about them that they might possibly add frightfully to the already enormous list of Mr. Wilson's post-mortem

affairs. A ward full of inmates labouring under thoracic inflammation might not like to have “pulpy softening” placed on their backs—will they, nill they; nor be treated at all hazards for ruptured muscle. We fancy there are worldly-minded men about, with a leaning towards life, to whom such happy innovations would be far less welcome than to the learned “Coroner Quackley.”

On the whole, then, dazzling as are Mr. Wilson's new discoveries (and we hold, after Boerhaave, that the new discoveries are all the more valuable from being *à propos* and well-timed), we do not fancy him injured—that is, *much* injured—by his inexorable exclusion from the hospital. To find out what is not, is quite a different office from curing what is; and patients, who discern danger as keenly as Indian vultures scent carrion, have not that love of the “post of honour” which Wilsonian principles would duly secure them. True, Mr. Lonsdale has little or no claim on the hospital or its governors; true, he is excluded by that fundamental rule, “No accoucheur shall be eligible to the hospital surgeonship”; but the candidature of Wilson characteristically exercises a magic influence: the want of claims is overlooked; the fundamental rule abrogated, and the happy Mr. Lonsdale—above all things happy in his opponent—is installed surgeon. The fact is remarkable: it may supply some small doubt as to the strict soundness of Mr. Wilson's surgery and physiology; the imputation is the more to be regretted since the whole medical committee, joined in the deplorable offence; yet still, on a review of the whole matter, we see nothing that can be fairly complained of. Mr. Wilson's principles of physiology are undoubtedly most singular—as peculiar in their nature as they are appropriate and well-timed in their applications—but we would be far more content to hear Mr. Wilson solemnly swearing to them before his friend the Coroner, than seriously putting them in practice on a patient; unless, indeed, it were a patient with as good a title to it as his friend's, the pure-minded and dignified magistrate. Besides, let us regard, if not the purity, at least the efficiency of coroners' courts. How could Mr. Wilson, with the respectable position of surgeon to a London hospital, keep up and thoroughly discharge the humble exigencies (so indispensable to “Coroner Quackley”) of *ex-officio* witness to his court? The curious justice-firm of “Wakley and Co.,” so long known for its active trade in mock grievances, would lose its most effective partner. No, no: sooner even spare Mr. Wilson the school, or the school Mr. Wilson, than remove so useful an appendage to Quackley inquest law.

Sharing the common fate of all great innovations—those of Mr. Wilson meet with little sympathy and (we are bound to confess it) no respect from his distinguished contemporaries. Every surgeon, every physiologist is banded against him. Sir George Ballingall, who considers himself, and is (droll enough) considered by others, a very conclusive testimony on these subjects, assures us:—

“Mr. Wilson's views on the deep-seated

of its course, and in front of the opening the suture was slightly separated, to the extent of about an inch and a half in length, which led into a fracture running into the left part of the frontal bone, close to the superior longitudinal sinus, and into the cribriform plate of the ethmoid, where it terminated on the left side of the crista galli; an effusion of blood was traced between the bone and the dura mater, in the course of the fracture, but it was very slight; patches of concrete lymph were also found between the bone and the dura mater in several places, but principally in the neighbourhood of the opening made by the trephine. On the left side the dura mater was much more easily separated from the bone than it was on the right. The superior longitudinal sinus presented in its anterior half a healthy appearance, but in the posterior half it was filled with lymph and pus, mixed with fibrinous coagula. The cavity of the arachnoid on the left side contained a very large quantity of puriform fluid, of a deep yellow colour, and both layers of arachnoid were on their free surfaces covered with large quantities of lymph; these appearances were confined to the two anterior thirds of the left hemisphere, the posterior third of the membranes being healthy in appearance. Large patches of blood were found adhering to the free surface of the parietal arachnoid, corresponding to the anterior part of the left hemisphere, and these patches were for the greater part covered with a thick layer of recently-effused lymph. A few very small patches of lymph were found in the cavity of the arachnoid on the right side; but otherwise the membranes on this side presented a healthy appearance. Lymph was also found in the sub-arachnoid tissue and in the pia mater on the left side, corresponding to the above-mentioned parts of the left hemisphere, between the convolutions of which it in some places dipped down. The grey substance of the brain in contact with the lymph was of a dark leaden colour; some clear fluid was found in the ventricles, which were somewhat dilated. Cerebellum, pons, and medulla oblongata, healthy.

## TO CORRESPONDENTS.

A Subscriber (London) will procure Lindley's “Elements of Botany” of Messrs. Braithury and Evans.

A. B. (Liverpool).—The “Medical Times” Prize Reports next refer to cases not older than twelve months preceding the day of announcing the proposition of prizes, viz., October 11, 1846. Any case occurring between October 11, 1845, and the day when the reports are given in to the arbitrators, will be open to the competition.

Mr. Dyer's case of delirium tremens has been received.

Mr. Lambert.—We do not know the best. A good Institution is the General Lying-in Hospital. We do not know the terms. Dr. Rigby is one of the physicians.

A Student tells us the fees of the College Medical Classes at the University of Edinburgh are £4. 4s., not £3. 5s.

Dr. Gore is thanked for his obliging communication. The statement signed X. Y. should have been authenticated.

Dr. Moses' contribution has been received.

The papers communicated by Mr. Petigrew, showing the manner in which the rulers of St. George's Hospital patronise clinical instruction, shall be noticed next week.

Mr. Brockman's case shall be noticed in our next number.

H. R.—We will make inquiry, and give the required information next week.

Mr. Bosquet's query, we fear, was misdirected.

W. B. H. (Brompton) is thanked, but we must decline noticing the misstatement. He must appeal to that unknown quantity—the justice of the offending party.

Medicus.—The same reply. The remedy is not to read the work.

H. H. may send us the papers.



Reid, of the 68th Light Infantry, I was requested to prescribe for a Mr. North, who had had a sore leg for a very long time. This happened to be an extensive chronic ulcer, with a varicose state of the veins of the leg. He tried many remedies without any effect, and not being able to give it rest, I proposed to him the insertion of an issue, mentioning its advantages as a safeguard, and its probable utility as a mode of cure. To this he assented, and in presence of Dr. Reid I made an issue with my lancet, and a couple of common peas, in a similar situation to that occupied by the caustic issue in the old lady. The sore was treated exactly as hers was; healthy pus soon became secreted, and the sore healed with rapidity. I saw this sore in ten weeks afterwards, when it was covered with a healthy cuticle. Nothing would induce him to part with the issue, which remained in until he died several years subsequently, he felt that it so relieved the centre of his leg of a feeling of disease, and "kept his head so clear." This gentleman was brother-in-law to Dr. Bright Casey, one of the senior physicians of this city, and his son at this moment occupies an important trust in the establishment of Messrs. Todd, of Limerick. I identify this case, as to date, 1831, with the adoption of the issue as a principle of cure, and I mention the parties referred to, to place it beyond question. Few men have had greater opportunities than I have had of testing its value since that time. Connected with a public institution where I was daily in the habit of prescribing for a great number of poor people, I made it a point to try it in all available cases. Up to the commencement of the present year I have adopted the practice in 376 cases—85 being females, 291 males—with a success very far beyond what a person would anticipate—a success which induces me urgently to recommend its adoption to the profession. It has many advantages. The principle involved in it is as sound as in the mode of relief of diseased structures by counter-irritation. It protects the constitution from the effects of stopping a discharge to which it has become accustomed; it relieves the plethora or the diseased action in a sore of less standing as well as in one of many days, by which both the curative powers of nature and the sanatory effect of local applications are rendered infinitely more effective.

The cure is permanent.—Within the last few months, since my election to the City Infirmary, I have had several cases, varying as to standing from four months to twenty years; the cure as to time varying from ten to thirty days; cases which have quite convinced my professional colleagues of the value of the remedy. So much was Dr. Gelston impressed with the principle, and with the results which he witnessed in these cases, that he has at this moment, he informs me, fifteen cases under treatment in the County Infirmary, and with the most satisfactory results. It is my intention to place a proper view of the results of the cases which, for fifteen years, have been treated by me—the character of the sores and their complications, the collateral treatment, &c.—before the profession in a useful form; but I have thought it right, for many reasons, to introduce the subject in this way in the first instance.

George's-street, Limerick, Oct. 7.

## IS CHOLERA CONTAGIOUS OR NON-CONTAGIOUS?

By W. PACKMAN, Esq., Assistant-Surgeon in the Madras Establishment.

On the eve of so terrible a calamity being expected as the appearance of Asiatic cholera in Europe, I feel it the duty of every person to give publicity to any facts which his experience may afford having the smallest tendency to avert, in his opinion, the dreadful contingency. With such an impression I forward you the following abstract history of its ravages in the corps to which I afforded medical aid.

The 2nd Regiment N. I. marched from Palaveram, in a tolerably healthy state, on the 27th of March, for Bangalore. On arriving at Arcot I strongly advised the commanding officer not to halt there, knowing that cholera was more or less prevailing at that station, and, in fact,

it actually did exist at the time of our encampment. An order, however, unfortunately arrived there from head-quarters, to comply with which it seemed necessary to halt a day, which was consequently done. Up to this time no cholera had appeared in the corps. Our encampment ground was distant about one mile and a half from the town of Arcot. On striking the tents on the following morning, in order to proceed on our march, two sepoys were reported sick; and on seeing them, to my sorrow, though by no means to my surprise, I recognised the dreaded malady. They died about eight hours afterwards. On the following day, continuing our march, no case was reported, and we fondly hoped these might be the only cases; but, on the succeeding morning, again, two men, one a camp follower and the other a sepoy, were seized, and died in a few hours. After this time cases daily occurred, the numbers each day steadily increasing, until from twenty to thirty admissions were made in the twenty-four hours. Up to this time we had continued our daily marches of from ten to fifteen miles. On the 10th of April a European officer was seized, and died in about twelve hours. On the 11th I was myself attacked; about this time its virulence was at the highest pitch, both as regards the numbers attacked and the almost certain fatality. Up to this moment, if I remember right, not one had recovered from the disease. Being myself disabled, the charge of the regiment devolved upon the other medical officer attached to the corps, and I was allowed to go on in advance of the regiment to Bangalore, on sick certificate. I subsequently learned, that after I left the disease raged for several days unabated, and then rapidly ceased. The result was the loss of upwards of 100 sepoys and an officer, out of about 600, including recruits; the number of deaths among the camp-followers was not known, but was doubtless very great. A native corps which had preceded us a short time before, on the same line of march, was attacked at about the same place; and with pretty nearly the same results; but a detachment of European artillery of about thirty men, which was in advance of our regiment on the same route, and encamped probably upon, or very near, the same spots as ourselves, entirely escaped, not even a follower was seized, although they were only one or two marches ahead of us; and what seems yet more singular is, that a detachment of fifty men, which were sent off from our regiment on the day during which we halted at Arcot, arrived at their destination without the occurrence of a single case among them or their followers. How, then, is this apparent eccentricity in the occurrence of the disease, and the contrary among bodies of men and women so similarly situated, to be accounted for? My reply is, by supposing that under certain circumstances, and in some way, perhaps, peculiar to itself, the disease is communicable from one person to another. I am of opinion, for instance, that during the stay of one regiment at Arcot some of the men strayed into the native town of Arcot, where the disease existed (as one case, convalescent, was at the very time in the hospital, which case I saw); that some among them being susceptible to its invasion took the cholera then and there, brought it into camp, and so disseminated the disease by contagion or infection among the rest; and it seems to me, from all I have heard and seen, that the evacuations, whether by vomiting or purging, are the probable sources of the poison, by the effluvia emanating from them being inhaled by persons liable to the disease. I do not see how by any other hypothesis than that of contagion, in some shape, the above-noted inconsistencies are to be reconciled; for, supposing the case either depended upon terrestrial exhalations or peculiar atmospheric states, how was it that the detachment of artillery and the detachment detailed from our regiment, both, as regards these two points, exactly similarly placed, entirely escaped? But, it may be asked, why was it that of the two detachments none of the men should have gone where the cholera existed in Arcot, and have been subsequently attacked? I answer that this was mere accident; for probably, out of this small number of men in either detachment, very few may have gone at all into the town, and of these few the

chances were that they might either not have gone within the limits of its influence, or that they might be proof against the disease—as we daily see many are at one time, though not at another; whereas, out of a body, including camp-followers, of perhaps 2,000 or 3,000, there would be a high probability of some among them liable to the disease becoming exposed to its influence, and thus, from the comparatively close manner in which the individuals in a camp are packed together, its subsequent propagation might be fairly expected. I may mention that it is commonly observed in India that regiments affected with the disease generally leave it behind them in the villages through which they march, such villages having been previously healthy. This, indeed, appeared to be the case in the instance above alluded to of the 2nd Regt., for prior to its approach to Bangalore no cholera existed there, whereas subsequently it prevailed to an awful extent; the town probably having been contaminated by infected camp-followers who preceded the corps to that station. The regiment itself was quarantined for some days at a distance from the station, until in fact no cases were reported. This precaution sufficiently evinces the impression which exists among the authorities, as to the probability of its contagion; nevertheless, there is a general unwillingness among the community to allow that it is so; this perhaps arises from the consideration that, if such a notion became prevalent, it would be detrimental to those sick of the disease, by deterring persons from rendering assistance unless absolutely compelled to do so. I do not think, however, that any such feeling should be allowed to weigh in determining the real state of the question, particularly as the belief of its not being contagious may lead to a most dangerous relaxation in adopting precautionary means for preventing its extension. I may remark that I have been convinced by the experience of this last occasion of the contagiousness of the disease, against a strong prepossession on the other side of the question; but I must confess that I had not before so painful an opportunity of strictly observing its peculiarities, and the laws which appear to govern its development. Admitting, then, the mere possibility of its being communicable from one person to another, will it not be highly desirable that every possible measure should be adopted by enforcing the quarantine regulations in Great Britain, and taking such other means as may seem necessary to prevent its occurrence? From our insular position, surely, this might be made effectual in repelling the advances of this unconditional enemy to the human race. God grant that it may.

Madras, August, 1846.

## CASE OF DELIRIUM TREMENS.

By THOMAS DYER, Esq., Surgeon.

On the 30th of last month I was called to J. W., aged twenty-eight, whom I had attended six months back with delirium tremens. He is of sanguine temperament, plethoric habit, and drinks a great quantity of spirits.

*Symptoms.*—Constant vomiting; hands and tongue very tremulous; skin moist; tongue furred and moist; pulse 90, and soft; slight pain in the epigastrium; sleeps well; bowels open.

Capt. haust. efferves. cum acid. hydrocy. (Scheele's), *m. iij. 4ta q. q. horâ.*

Oct. 1. Has had no sleep; other symptoms the same.

Applica empl. lyttæ regioni epigast.

Rep. Haust. efferves. 4ta q. q. horâ cum additione R. opii *m. xij. singulis dosibus*; haust. cathart. statim sumendus.

Oct. 2. Vomiting has ceased; skin moist and tolerably cool; pulse 90, and soft; tongue slightly furred, and moist; bowels open; has had no sleep; sees visions; and begins to be difficult to manage.

Ten A.M. Capt. pulv. opii gr. iv.

Three P.M. Rep. pulv. opii gr. iv.

Six P.M. No sleep; pupils contracted; head rather hot; pulse full, and 96.

Applic. hirudines viij. temporibus.



Twelve p.m. Head not so hot; pupils less contracted; no sleep.

Capiat pulv. opii gr. ijss.

Diet during the day has been beef-tea, gruel, and one pint and a half of porter.

Oct. 3. Has had no sleep; but has been furious all night, and fancying that a bear was chained in the bed with him. Pulse this morning 110, and smaller; head cool; he sweats a good deal; tongue moist and furred; bowels confined.

Five a.m. Rep. pulv. opii gr. ijss.

Eight a.m. Haust. cath.

Twelve o'clock. Bowels opened; no sleep.

Rep. pulv. opii gr. iv.

Six p.m. No sleep.

Rep. pulv. opii gr. iv.

Twelve p.m. No sleep; pupils contracted.

R. Tinct. lupuli, 3vj.; tinct. valerianæ, 3ij.; mist. camph. 3vss. m. ft. mist. capt. part. quartam 4tis horis. Diet during the day beef-tea, &c., and one pint and a half of porter.

Oct. 4. Tremor less, but visions still present; patient exceedingly difficult to manage; pulse remains the same; bowels confined; tongue moist; pupils not contracted.

Three a.m. Rep. pulv. opii gr. iv.

Eight a.m. Haust. cath.

One p.m. Bowels opened. Rep. pulv. opii gr. iv.

Three p.m. Has gone to sleep.

Ten p.m. Has just awoke; sees no visions, and is quite rational. Diet during the day, beef-tea, &c., and one pint and a half of porter.

Oct. 5. Has slept soundly all night, and feels well, but very sleepy; bowels twice opened; pulse 90, and soft; tongue clean and moist.

R. Tinct. lupuli, 3iv.; tinct. valerianæ, 3ij., mist. camph. 3vss., m. ft. mist. cap. quartam partem 4tis horis.

Oct. 6. Slept on and off till midnight; was then awake till four a.m., and saw visions slightly; slept afterwards till nine a.m.; is attacked with diarrhoea; pulse 72, and soft; tongue clean; skin cool and moist.

Cap. mist. cretæ, 3jss.; tinct. kino, 3ij.; sp. ammon. arom., 3ss.; tinct. opii, m. x. in haustu 4ta quaque hora. Diet, mutton chop and one pint and a half of porter.

Oct. 7. Slept tolerably; has seen visions slightly; diarrhoea has ceased; pulse 68, and soft; skin cool; tongue perfectly clean; complaints of debility.

R. Inf. gentianæ, 3vj.; ammon. carb., 3j. ft. mist. cap. quart. part. ter in die.

Oct. 8. Has gone to his usual avocations, and left word that he is quite well, but very hungry.

REMARKS.—In this case, which was the third attack, and the second in which I attended, the quantity of opium taken before sleep was procured was 31 grains, mostly in four-grain doses, at intervals from five to eight hours. The application of leeches, after two or three full doses, relieved the head from heat, brought down the pulse, removed the contraction of the pupils, and allowed the opium to be pushed again in large doses. Notwithstanding the quantity of opium taken, the bowels were kept open without difficulty; and, on the 6th inst., spontaneous diarrhoea occurred, no aperient having been given for two days previously.

Upper Marylebone-street, Oct. 6.

# OCCURRENCES IN PORTO RICO AFFECTING THE LIBERTY AND PERSONAL INTERESTS OF A MEMBER OF THE MEDICAL PROFESSION.

By Dr. D. McCONNELL REED.

(Continued from page 13.)

As no notice had been previously taken of the letter with which my last article concluded, after the lapse of a few days I called at the Government-house, and inquired of the Secretary what answer the Governor had made to my representations. The Secretary showed me a Spanish translation of my letter to the Governor, on the margin of which the Governor had written—"The party interested had my permission to practise only in

the capital; he cannot, under present circumstances, be allowed to practise anywhere else on the island; he may have his passport to go wherever he pleases, out of the island."

On receiving this intimation I requested my passport for the Havannah, intending to proceed thence to Jamaica, in order to lay my complaint in person before Sir Charles Metcalfe (subsequently Lord Metcalfe, now deceased). But after waiting eight days for an opportunity to proceed on my journey, and none presenting, I determined to remain where I was, and complain by letter to the Governor of Jamaica. Accordingly, I called on the Governor of Porto Rico, and told him, that in consequence of the delay which I had experienced in finding a conveyance to the Havannah, I had determined to defer my journey till a more convenient time; and that, with his permission, I would, for the time being, remain where I was. His Excellency seemed quite disappointed that I had come to such a resolution, and reproached me for being changeable. I defended myself against this charge, by asserting that it was every man's duty to act, in a great measure, according to circumstances; but, at the same time, I assured him that I did not wish to remain on the island, under existing circumstances, contrary to his wish. He then said, that he certainly did not wish to compel me to leave the island; that I might either go or stay, as I pleased; but that I must on no account exceed the bounds of the capital. He also told me that he had given information to his Government (*i.e.*, the Spanish Government) that I had asked for my passport; and he repeated to me that, if he could prove what he suspected me of, he would not hesitate to send me my passport; but that, as he could not do this, he did not wish to incur the responsibility of sending me away. I retorted that he was speaking quite enigmatically; that I did not, nor could not, understand him; but that, if he suspected me of anything, I requested that he would tell me what it was, in order that I might have an opportunity of clearing myself from any unjust imputations. To this he replied, that he could not be plainer; but that he knew my sentiments and mode of thinking when I was in Mayaguez, and that everything was a mystery until it was explained. I rejoined, that if his Excellency knew my secret thoughts, that then indeed I had the honour of being very intimately known by him; but that I was still in total darkness why I was treated with so much rigour, and deprived of my rights as a physician and a domiciled person.

I now proceeded to relate the circumstances of my case, by letter, to Sir Charles Metcalfe, referring him to certain friends in Jamaica, and requested that he would use his influence to remove the disabilities under which I unjustly suffered. I have before me at this moment a copy of the letter which I sent to Sir Charles Metcalfe; but, as it is a long and circumstantial document, it would be too tedious to publish it, particularly as the substance of it has already been given in the preceding statements. The reply which I received to my letter to the Governor of Jamaica was as follows:—

No. 1,374.] "JAMAICA.

"King's House, Dec. 21, 1841.

"SIR,—I am instructed by the Governor to acknowledge the receipt of your letter, without date, representing certain grievances to which you state yourself to have been subjected by the Governor of Porto Rico. And in reply I am to inform you, that his Excellency has no authority to interfere in questions between you and that functionary, nor to address him respecting the rights of British subjects residing under his Government.

"I have the honour to be, Sir,  
Your obedient servant,

(Signed) "JNO. HIGGINSON, Sec.

"D. M. Reed, Esq., Porto Rico."

I must acknowledge that I was somewhat disappointed at the contents of the letter which I received in answer to mine addressed to the Governor of Jamaica, as I had always been under the impression that a complaint coming from a

respectable quarter was sure to meet with due consideration by the British Government; and I considered the Governor of Jamaica to be the most influential member of the British Government in the West Indies. However, as that functionary declared that he had no authority to act officially in such cases as mine, I determined to try what further persuasion would do with the Governor of Porto Rico, or to await a more convenient opportunity of carrying my complaint to head-quarters, making no doubt that I should eventually be righted. Let me here observe that, medical affairs were so brilliant at Porto Rico, had I been allowed to take advantage of my acquired rights, I should most certainly have accumulated, in a few years, a very handsome independence. In proof of this statement, during my short stay in the capital, I was several times solicited to go into the country to visit rich planters, who had sent horses and servants to fetch me, and offered me, through their agents in the city, very high fees: on one occasion I was offered eleven doubloons, or about thirty-three guineas, to go and remain with a gentleman for ten days, but was not permitted by the Governor to go, although he was entreated to do so by the agent of the gentleman who solicited my attendance. This was not a solitary instance of the same kind. Many persons, however, came to the capital, in order to benefit by my treatment, and paid me handsomely for my services. As instances of this I may mention the case of a native of the island, who paid me 200 dollars, or £40, for successfully incising a cancerous portion of his lower lip; and a priest, who insisted on my receiving, as a present (for I refused to make him any charge), six doubloons (nearly £20) for cutting an encysted tumour from the ball of his right thumb. From these circumstances it will at once appear that I had strong inducements to make strenuous efforts in order to remove the disabilities under which I laboured. Accordingly, as my application to the Governor of Jamaica had failed, I determined to use my influence among my friends in the capital, and take advantage of such events as might occur, in order to move the Governor to change his course of procedure towards me. With this view I had a conversation with the Dean of Porto Rico, the first ecclesiastical authority on the island, who had previously consulted me in reference to a chronic complaint under which he was suffering; and he promised me to use his influence with the Governor in order to procure my liberty to practise in the country. I also spoke to the Chief Justice, a principal member of the Governor's Council, whom I was in the habit of meeting very frequently at a mutual friend's house; and the Commander of the Forces, whom I did not know personally, was spoken to on my behalf, by his own son, at the request of one of his brother-officers, a friend of mine. The two former of these gentlemen assured me that they had used their good offices with the Governor to obtain the object of my desire, but that his Excellency did not seem disposed to change his mind, nor did he assign any reasons for his conduct; indeed, they added, that it was a delicate matter, and they were sorry that they had not been better able to serve me. My friend told me that the Commander of the Forces had tried, but that he had met with no better success. I now consulted a native lawyer of great eminence, who told me that the conduct of the Governor towards me could not be justified upon ordinary principles of action; that he was acting solely on his own responsibility; and that he must have some very weighty motive. While these events were passing, several British subjects—planters and engineers—came to the island, in order to settle, but they were subjected to a great many annoyances in the form of delays and pecuniary exactions, in the shape of fees paid for the purpose of procuring their domicile; and, after spending a long time in endeavouring in vain to obtain the necessary licenses in order to become residents, one of them was under the necessity, in consequence of a failure of pecuniary means, of leaving the island. The other told me that he



was required to have his head shaved and to be rebaptized, before they would consent to grant him his domicile, which he in consequence declined accepting. He also retired. Both these individuals addressed letters to me before their departure, requesting that, if I visited England, I would make the bad treatment which they had experienced known in common with my own complaints. A Scotchman also, by the name of Reid, who had entered into a contract with the Government to construct a wharf, complained to me about the remiss manner in which the island authorities fulfilled their promises, and expressed a strong desire that Government would send out a Consul in order to protect the interests of British subjects. He gave me a copy of the contract into which the Government had entered with him, in order that I might make use of it to show the importance of British transactions at Porto Rico, and the consequent claim there was on the Government for protection. At the same time, two captains of British merchant vessels complained to me about annoyances and impositions to which they had been subjected, and requested, if I had occasion to represent the injustice under which they had heard I had suffered, that I would make a point of representing, at the same time, what they had experienced. They also addressed letters to me on their respective grievances.

I had now nearly made up my mind to proceed to England, in order to lay my case before the Secretary for Foreign Affairs, as I thought I had exhausted every expedient to obtain my rights, but without effect.

At this juncture, however, I was informed by the two captains just alluded to, one morning, before I was dressed, that Lord Elgin had just arrived; they stated that they thought, perhaps, I would wish to see him, and therefore they had come to inform me of the fact. Lord Elgin was just about leaving the island with his countess when I requested he would afford me an opportunity of saying a few words to him before he took his departure. The steam of the *Medina*, the vessel in which he was proceeding to take charge of the Government of Jamaica, was up, and the mail-boat and company were waiting, so that my interview with his lordship was necessarily short, although important. It ended in his requesting me to write to him, and to refer him to some friends in Jamaica, and a promise, on his part, to do what he could to help me. The *Medina* was wrecked not many hours after Lord Elgin and I parted. It would seem as if an evil genius had crossed his path. The letter which I addressed to Lord Elgin after his departure is as follows:—

"Porto Rico, May 14, 1842.

"To the Right Honourable the Earl of Elgin, Governor of Jamaica, &c. &c.

"MY LORD,—Referring to the brief conversation I had the honour of having with your lordship in this city, I beg to forward the accompanying copy of my communication to Sir Charles Metcalfe, in November last year (the substance of this communication has already been stated). From this your lordship will learn the circumstances of my case previous to the present time.

"I may add that, although I have had frequent subsequent interviews with the Captain-General of this island, with a view of moving him to grant me my liberty to practise in the country, he still remains immovable on this point. The last time I saw him was about a month ago, when he told me that he was sorry he could not comply with my request. I have been a serious loser by these restrictions; and some pecuniary matters, which I should otherwise have attended to, have been unavoidably neglected.

"I am not the only British subject who has been suspected and inconvenienced. Two young men arrived here a few weeks ago from the island of Trinidad, with a view of establishing themselves in agricultural pursuits; but they were obliged to leave the island on account of not being able to find security for their good behaviour—so strict is the Government at present, and so jealous with regard to the admittance of British sub-

jects, that some resident agent or minister is much required to whom recourse may be had by those who come to establish themselves in the country.

"I am sure I should have had no difficulty if there had been a resident British Consul here. It is now ten months since I was restricted in the exercise of my rights, and I am almost in despair of regaining them; and although these restrictions have been prejudicial to my pecuniary interests, in a considerable amount, still my claims are of such a delicate nature that I do not expect to get any compensation for my losses from this Government. I hope, however, that some measures will be taken to prevent the recurrence of such difficulties to others, and that your lordship will be able, through the information which you may receive in Jamaica respecting my character, to remove from the mind of the Captain-General of this island any idea which he may have formed of the revolutionary nature of my mind.

"If your lordship will have the goodness to address his Excellency on the subject, I do not doubt but that he will relax his rigour, and allow me freely to practise my profession.

"I have been obliged to turn my attention, during my comparative confinement here, to some occupation, and I have translated the regulations respecting the commerce and shipping of this island, including the duties imposed on British manufactures and tonnage, &c. I have also revised and enlarged the Commercial Report, which I forwarded to Lord Palmerston last year, and have collected general information which it may be of service to her Majesty's Government to know.

"I had an intention, which I have not yet wholly abandoned, of going to England in order to lay my case before Government, and at the same time to present the papers containing the information in question, with a view of inducing the appointment of British Consul; but if your lordship will take an interest in my case I shall wait the result. I am aware that I have no particular claim on your lordship's favour, but I have a general claim which I feel persuaded your lordship will not deny. It is that claim which every unfortunate, oppressed man makes when he appeals to a powerful, a noble, and a good man; and this claim is seldom denied when directed to one such as I have described. I feel that your lordship admitted this claim when you promised to extend to me that protection which might be in your power.

"I have the honour to be, my lord,  
"Your lordship's most obedient humble servant,  
(Signed) "D. M. REED."

"P.S.—I was this morning called up to the Government-house, and asked by the Lieutenant-Governor if the Governor of Jamaica had been here. I answered that your lordship had called here, in the steamer, going from Great Britain to Jamaica. I said I believed your lordship had been informed that the Captain-General was absent. The Lieutenant-Governor then observed that he represented the Captain-General in his absence, and that he was sorry that he did not know of your lordship's presence in the capital, in order that the due honours might have been observed.  
"D. M. R."

I had forgotten to state previously that during my interview with Lord Elgin, I had referred him to the Bishop of Jamaica and to Wm. Ramsay, Esq., Secretary-General of Police—gentlemen to whom I was personally known when I resided in Jamaica. But as I had been some time absent from Jamaica, and during that time had had no communication with either the Bishop or Mr. Ramsay, I thought it advisable to inform them what I had done; accordingly I addressed the following letter to the Bishop:—

"Porto Rico, May, 1842.

"MY LORD,—I took the liberty the other day of referring Lord Elgin to your lordship for information respecting me. The case was as follows:—I have been somewhat oppressed by the Governor of Porto Rico. I had previously written

to Sir Charles Metcalfe for protection, who expressed his inability to interfere in questions between the Governor of Porto Rico and myself. When Lord Elgin landed here, some days ago, I addressed myself to his lordship, who expressed a desire to serve me, but observed that he had no previous knowledge of me. I referred him to your lordship and to Mr. Wm. Ramsay, as being gentlemen whom his lordship would be most likely to see shortly after his arrival at Jamaica. I have been seven years absent from Jamaica, and it is not unlikely that your lordship may have forgotten me. For this reason I now take the liberty of stating that I am a brother of the Rev. Wm. Reed (formerly the Bishop's chaplain), now residing in York; that I had the honour of being introduced to your lordship by him, and of seeing you at his house in Spanish Town, besides of dining and visiting at your lordship's residence at St. Andrew's. I trust your lordship will excuse these minutiae, appreciating the motive of my reference and the desire which I have of justifying it; and that, if Lord Elgin appeals to you for information respecting me, your lordship will supply such as can be obtained, if necessary, from my friends Drs. Spalding, of Kingston, and Cooke, of St. Thomas-in-the-East—gentlemen well known to your lordship, and to whom I am most intimately known.

"I have the honour to be, my lord, your lordship's most obedient humble servant,

(Signed) "D. M. REED."

I addressed a letter to the same effect to Mr. Ramsay. Some time afterwards, however, before I had received any answer to my letter to Lord Elgin, I had a passage on board a vessel proceeding to England offered to me on very advantageous terms, which I did not think proper to refuse. I therefore informed Lord Elgin of my intended departure, and begged he would direct any communication which he might think proper to make to me, to England. I arrived in England about the middle of July, 1842, and I met my brother, the Rev. Hugh Reed. My next step was to endeavour to get an interview with Lord Aberdeen, but this I found was no easy matter. However, I called at the Foreign-office, and made known my object. I was shown into the library, while some inquiries were made of the gentlemen within. The answer which I received was to the effect that Lord Aberdeen never saw any one without an especial appointment. As I was leaving the library, however, I met him in the lobby—of course I had no opportunity of saying a word to his lordship on that occasion, but I went home and wrote him a note, stating that I just returned from the West Indies, and begged the favour of an interview in order to communicate to him some events that had occurred at Porto Rico, affecting the rights of her Majesty's subjects. My note was dated "Rectory, Stepney," and signed "D. M. Reed." His lordship's reply was as follows:—"Lord Aberdeen presents his compliments to Mr. Reed, and, as his time is very much occupied, he requests that Mr. Reed will have the goodness to state in writing any communication that he may wish to make with regard to the events in Porto Rico to which Mr. Reed refers in his letter of yesterday's date.—Foreign-office, August 2, 1842." This letter was addressed to the Rev. David Reed, Rectory, Stepney.

(To be continued.)

NOTE.—There is an apparent discrepancy in my statements of the cause of the retirement from Porto Rico of the two young men who could not obtain their domicile, but this discrepancy is only apparent. The explanation is as follows:—Before a foreigner becomes domiciled he must give security for good conduct; but after he becomes domiciled security is no longer necessary. In the case of the young men, the ostensible motive of their leaving the island, as is stated in my letter to Lord Elgin, was the withdrawal of the security that had been given for their good conduct when they first came to the island; but the causes which led to that withdrawal are as I have stated in the body of this article.



## HOSPITAL REPORTS.

## KING'S COLLEGE HOSPITAL.

## POISONED WOUND OF FINGER, FOLLOWED BY PHLEBITIS, DEEP-SEATED ABSCESS, INFLAMMATION OF THE LUNG.—RECOVERY.

Henrietta Brown, aged thirty-five, assisted a surgeon whilst making a *post-mortem* examination, on the evening of August 19. At that time she had a slight abrasion of the cuticle on the index finger of the right hand.

On the 20th the finger was slightly painful and swollen, and a small abscess formed, for which she applied a poultice. In the evening, twenty-four hours after reception of the injury, she experienced a severe rigor, which was followed by great heat of surface, vomiting, and headache.

On the following morning she noticed a painful swelling in the axilla, her arm also was very painful. In the evening she was so extremely ill that she was obliged to take to her bed.

Aug. 22. I first saw her. She complains of great pain from the elbow to the shoulder of the right arm. Nothing is observable but some increase of size of the upper part of the arm, and a general fulness about the shoulder; there is no redness perceptible; she cannot bear the least movement of the limb; there is a slight abrasion on the index finger; the axilla is painful, but there is no swelling; the constitutional symptoms are very severe; countenance is pale and anxious; there is constant vomiting; pulse rapid, and peculiarly irritable; tongue brown; great headache; intellect is quite clear; bowels open. Arm to be well fomented. *Hirudines* vj.

*Rx.* Mist. ammoniæ citratis,  $\mathfrak{z}\text{ij}$ ., sp. amm. arom., m. xx., 4tis horis.

*Rx.* Hyd. chlor., gr. ij.; p. ipecac. eo., gr. v. ter die.

23. Experienced great relief from the leeches, but has passed a restless night; the upper arm and shoulder are more swollen and puffy; there is also a fulness over the pectoral region, and great pain; vomiting has continued; there is great anxiety and depression; she has some cough.

*Rep.* *hirudines* vj.; adde haust. vin. ipecac. m. xv.

In the evening I was sent for. She was in great pain; the swelling in pectoral region had increased, and it has extended up the right side of the neck in the course of the jugular vein. *Hirudines* vj. collo.

24. Has again experienced much relief from the leeches; the swelling and pain in the neck have much diminished, but it has increased in the pectoral region, and has spread in front of the chest; vomiting still unabated; tongue much furred; pulse very sharp and irritable; cough is troublesome, and she expectorates a dirty mucus; her arm is less painful, and she can now move it a little; some sibilus audible on right side of chest.

*Rx.* Creosot. m. j. statim; adde haust. vin. ant. m. xv. vice vin. ipecac.

25. Vomiting was stopped by the creosote, but she has been purged; she feels better altogether; the swelling in the arm has diminished, and she can move it freely; she complains of considerable pain above the right clavicle; pulse less irritable; expectoration slightly tinged with blood. To have wine and arrowroot. *Rep.* medicamenta.

26. Swelling about arm and shoulder much diminished. The chest symptoms are now most striking; breathing rapid; crepitant râle heard over right lung. *Rep.* medicamenta. *Applic.* empl. lyttæ inter scapulas.

27. Is better, but feels much depressed; the swelling is less, except in the pectoral region, where it steadily increases; the breathing is less hurried; tongue moist; skin moist. *Rep.*

28. There is a great fulness in pectoral region, and a sensation to the finger as though there was deep-seated matter there; pain under axillary region; chest symptoms are better; cough is less troublesome; expectoration less. Mercury has touched the gums. *Rep.*

Sept. 1. Has been slowly improving, but she is very weak; the fulness in pectoral region has in-

creased in extent; the signs of deep-seated matter are more evident, but it is thought advisable not to make an incision at present; chest symptoms better; still some cough and quickness of breathing. *Omitte medicamenta.*

*Rx.* Acid. nitric. dil., m. xv.; decoct. cinchonæ,  $\mathfrak{z}\text{ss}$ . ter die.

6. There is now a large swelling involving the right side of the chest above the mamma; pain is severe there; there is now no doubt of the existence of matter in considerable quantity, and it appears to be under the skin. I introduced a narrow bistoury into the most prominent part of the swelling, about half an inch in depth, but no matter appeared. Feeling certain of its presence, I carried the knife completely through the pectoral muscle until it came in contact with one of the ribs, when a large quantity of healthy pus escaped; I introduced my finger into the wound, and could feel a large cavity extending on all sides. She experienced much relief from the operation. *Catapl.* lini.

*Rx.* Quin. sulph. gr. ij. ter die.

9. Has been much relieved, but is still very weak; there is a profuse discharge of healthy pus from the wound, and the swelling has almost all subsided; has some cough at night, and expectorates some mucus; pulse still frequent and irritable.

10. She was sitting up to-day; she is pale and thin; cough troubles her at night. As I could now make a more careful examination of the chest, I did so; at the lower part of left lung the breathing is mixed with sibilant and crepitant râle, and there is some bronchial breathing, and some dullness on percussion; she has been accustomed to a winter cough. *Applic.* empl. lyttæ inter scapulas.

*Rx.* Ammoniæ carb. gr. vj.; vin. antim., m. xxx. 4tis horis.

*Rx.* Hyd. chlor., gr. ij.; p. opii, gr.  $\frac{1}{2}$  bis die.

12. Is much better; breathing is clearer on both sides of chest; there is merely a loudness of the expiratory murmur on left side, mixed with moist crepitus; wound still discharging.

17. Wound healing; not much discharge; cough better; expectoration less, rather frothy; she is feeling stronger.

19. Now sits up daily; wound not quite healed; has a slight cough at night.

22. Has been attending to her household duties; the attack has left her very weak.

Wounds poisoned by the fluids from the dead human body are generally followed by inflammation either of the lymphatics or veins. In this case I believe the latter vessels were affected, as there was that peculiar swelling and puffiness observed in phlebitis, and no redness or inflammation in the course of the lymphatics. Recovery from phlebitis is rare, as the records of surgery testify; and, even if it does take place, the constitution is much shattered for a long time afterwards. The treatment consisted in relays of leeches locally, and at the same time general stimuli, and a cautious use of mercury; which remedy I have seen particularly useful in phlebitis occurring after amputation of the thigh. The inflammation in the chest was produced by the poison, and consequently demanded not depletive measures but careful stimuli, as I believe most inflammations occurring from specific poisons do demand. Abscess under the pectoral muscle is common in such attacks; and frequently repeated collections of matter and ugly sinuses result after the evacuation of its contents; but, fortunately, nothing of this kind took place here.

**GORGED LEECHES.**—The commissary of police of the Quartier Montorgueil, Paris, assisted by a professor of the School of Pharmacy, visited, on Monday, October 5, the pharmacies of the Rues St. Martin and Montmartre, in order to ascertain the presence of gorged leeches amongst those which were exposed for sale. Forty-eight thousand gorged leeches were seized.

**SCHOOLS OF MEDICINE.**—By a ministerial decision it is decreed that from November 1, 1846, medical students shall pass at the end of each year an examination of probation. The fifth examination for the degree shall in future be passed at the expiration of four years' study.

## MEDICAL TIMES PRIZE REPORTS

## THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

## SURGICAL CASES.

## INJURIES OF THE HEAD.

**CASE 1.**—John Sponge, aged twenty-seven, bricklayers' labourer. Admitted August 20th, 1845., at half-past five p.m., under Mr. Keate. There is a scalp wound, about an inch and a half in length, leading down to a fracture in the anterior inferior angle of the right parietal bone, with a slight depression, just sufficient to catch the nail; bone denuded of its periosteum for a short distance around the fracture; pupils natural; intellect perfect; countenance pale.

Fell about five feet, and struck his head against a bar of iron with a sharp edge; was stunned for a few minutes, but recovered his senses and was able at once to walk to the hospital, where he arrived ten minutes after the accident. Water dressing under oil silk to wound.

10 p.m. No bad symptoms have as yet occurred; pulse 80, full and strong; no pain around wound; v. s. ad.  $\mathfrak{z}\text{xiv}$ .; pulse somewhat lowered in strength after the bleeding.

*Rx.* Hydrarg. chloridi, gr. iv. h.n.; haust. sennæ,  $\mathfrak{z}\text{ss}$ . e.m.

21. 10 a.m. Has passed a comfortable night; head feels tolerably easy; pulse 80, soft, full, and regular; tongue moist and clean; blood slightly buffed, not cupped.

*Rx.* Haust. nitri,  $\mathfrak{z}\text{ss}$ .; mag. sulph.,  $\mathfrak{z}\text{ss}$ . ter die.

1 p.m. Much the same; feels pretty comfortable; pulse regular; tongue moist and clean; no headache.

22. Pulse regular; tongue moist and clean; no headache.

23. Dressing removed and fresh applied; wound looks healthy and clean.

24. Pulse regular; tongue clean; no pain. Broth diet.

26. Doing well in every respect; wound discharges healthy pus.

27. *Rx.* Haust. salini,  $\mathfrak{z}\text{ss}$ . ter die. *Omit.* h. nitri. c. mag. sulph.

29. Still doing well; tongue clean; pulse natural.

Sept. 1. Wound cicatrizing at edges, granulating in centre.

3. Wound healthy in appearance; pulse regular. To get up.

6. Wound nearly healed; seems in good health.

12. Discharged cured.

**CASE 2.**—John Smith, aged twenty-five, bricklayer. Admitted January 1st, 1845. Under Mr. Cutler.

10 a.m. Brought in in a state of collapse, breathing stentorously, with cold extremities, sickness, and a pulse scarcely perceptible; the pupils were dilated, but on exposure to light they have contracted; there is considerable bleeding from the left ear, and also from the nose; over the right frontal protuberance there is a lacerated wound about two inches in length, and the bone for some extent is exposed. He fell from a scaffold about sixty feet high, and was immediately brought to the hospital.

11 a.m. There is considerable ecchymosis of both eyelids, with strabismus of the right eye and protrusion of the left, probably from effusion of blood into the orbit; pulse 82, soft and full; v. s. ad.  $\mathfrak{z}\text{ix}$ .; after which the pulse fell to 70, and decreased in strength.

1 p.m. Pulse 120, feebler; he has been again sick, his pupils set, and he can now answer questions.

*Rx.* Hydrarg. chloridi, gr. v.; sacchari, gr. iij. statim.

3 p.m. Pulse 124, weak; has retained the powder, but is now vomiting bilious matter; strabismus of right eye not so great; still some oozing from left ear; seems drowsy, but will answer questions.

5 p.m. Pulse 105, fuller; oozing from the ear has almost ceased, as well as the strabismus of right eye; breathing more natural; but he is not



muscles of the back are not only novel, but in a great measure *unintelligible*."

Are we to believe this? Is it credible? "*Unintelligible*." Is Sir George serious? When five medical men could have their reputations ruined—a friend in a pinch served, and a violent popular ferment kept up—only by a "novel discovery never before made," is it "*unintelligible*" that that discovery, just in the nick of time, should be made? "*UNINTELLIGIBLE!*" Sir George, think again. What when a politico-juridico-journalistico-trading firm on its last legs just starts a capital "*spec*" in the judicial line—and only wants a few "novel views on the deep-seated muscles" to get up a magnificent field-day—is it "*unintelligible*" that the "standing witness" of the inquest court—its *ex-officio post-mortem* examiner—should supply these views?

Sir George does not live as far north as we fancied. But let us hear again what he writes to us:

"That Dr. Warren has suffered much mental anxiety and distress from circumstances connected with the unfortunate case in his regiment, I have reason to know, although I do not see a shadow of blame which can be attached to him. I shudder to think how often a similar misfortune might have befallen myself. That Colonel Whyte and Dr. Warren have escaped a burst of popular outrage, considering the attempts so unjustly made to criminate them, is to me matter of some surprise."

There we have the innocent Sir George again! So tender to Dr. Warren, he wholly overlooks both the *wants* of the *head of the firm*, and the hard position of its medical subaltern. He is obviously ignorant of the social necessities of some portions of the metropolitan population, and forgets that, after all, men must live. Sir George "*shudders*" at the proceedings of our novel court of coronatorial equity! He is horror-struck at the sacrifice of an innocent and worthy brother practitioner! True, the deed was nefarious—very; but, then, has it not vitally served the turn of the actors? and has not poor Dr. Warren his innocence to console him? Simple Sir George!

Sir George takes some trouble to prove that the learned nonsense talked about burns and sensitiveness of the skin was really only nonsense. He assures us that burns have no analogy to flogging wounds; that burns cause their general effects immediately, or not at all; that there is no instance on record of "death from burns when the injury is confined to so limited a surface as that involved in the ordinary mode of inflicting punishment"; and he reminds us that the "*useful* witness himself attributes the death not to the state of the skin, but to the deep-seated muscles." But of what avail all this, but to light candles to the sun? "New discoveries" of the kind so useful at Hounslow hardly uphold themselves by their own specific gravity. They must be propped up in every conflicting and varied form, if there is to be any chance of their standing. Besides, after making a grand discovery, is there to be no license from it for throwing dust

in people's faces? Must we really take the trouble to demonstrate with chemical precision that it is but dust? But enough: we have talked so much of the filthy subject that we seem to be inhaling the odour of that *unholy* inquest court, almost in contact with the obscene harpies that infest it!

"Quot incrementa scientia, quot precipue medicina, intra paucos annos accepit, haud quisquam ignorat. Philosophorum medicorumque industria, non modo vias notas excoluit, et ampliavit, verum etiam tramites novos ostendit feliciterque patefacit."—BEST.

IN concluding our article, a fortnight ago, on vaccination, we promised to resume the subject on a future occasion. It will be remembered that we descanted upon the popular prejudices concerning it, and stated the chief causes of them. Of these we observed that certain are due to ourselves, as a consequence of inattention to the character of the virus used; the health of the subject from which it is taken, as well as of the one to which it is applied; and the mode of performing the operation.

To begin with the last, it is one of the many proofs extant of the desirableness of attending scrupulously to minor surgery. The ambition of the majority of young men is to see, and to be successful in, capital operations! If they can dexterously sweep off a man's thigh—dash spiritedly into his bladder and extract a calculus—or cut down upon and reduce his hernia in about the same space of time it takes an ordinary mortal to pare an ordinary corn—they have reached the Olympus-heights of surgery! These obligations of private practice, which may perhaps occur to them *once in their lives*, they especially prepare themselves for, neglectful of that smaller surgery that is apt to demand their manipulations every day. It is for this reason that the commonplace, unfashionable, unsurgeon-like duties of tooth-drawing, bleeding, vaccinating, &c., are often performed with so much unskilfulness. We have known a surgeon confess his inability to extract the tooth of a patient—and lose that patient in consequence; we have known another try to bleed, and send his lancet smack through the vein into the artery beneath it; a third, to snip the *frænum linguæ* and nearly bleed the child to death; and a fourth, to vaccinate over and over again, without communicating the virus. All these things have been traceable to bad surgery—the consequence of imperfect initiation into the ceremony and substance of these "*unconsidered trifles*" during the period of studentship.

This is one of the causes of the unpopularity of vaccination. A mother wants it performed upon her child, and requests that her surgeon will attend to it directly that he has any matter he can recommend. He calls in due course, vaunts the *virtues* of his *virus*, and inserts it into the arm of the child. After the lapse of a week, nothing is seen but a scratch; and a second attempt is made. This again fails, and there is a repetition, until the parents are tired of it, and close all further *meddling* with the sweeping conclusion that it is altogether "*humbug*." The failure has been owing to the manipulator scratching so deeply with his lancet that the exuded blood has encompassed the virus and prevented its absorption.

A second case occurs, and, instead of the pock rising and maturing healthily, it furnishes pus, or ichor, or bloody serum, in place of lymph; and round the deposit, to an indefinite extent, is an erysipelatous-looking inflammation. After much trouble and treatment, both local and general, the sore heals, and the child gets well; but shortly afterwards takes the smallpox, and suffers from it severely. These are sad cases, but they are not uncommon. An investigation into them generally terminates in the conviction that the untoward circumstances were due to the matter itself being unhealthy, or too old before its removal from the pock; to the child from which it was taken being disordered or diseased; or the one to which it was administered being in a like condition.

These are items of the most serious consequence, and yet are often neglected as though they were of no consideration at all. As a rule, it is advisable never to vaccinate with virus from the pock, however healthy-looking, of a child, itself diseased, or of diseased parents. It is well known that the lymph of a healthy-looking pock, of a constitutionally healthy child, has become deteriorated by that child catching cold or being seized with bowel complaint during the maturation of the pock; and that this said lymph has been the cause of painful, nay dangerous, symptoms to a sound child inoculated with it. On the other hand, the healthy virus of a healthy source has propagated itself mischievously, and sometimes fatally, when impregnating a subject diseased or disordered at the time of taking it. The observations made on the case above are applicable also to this one—even a slight deviation from health on the part of the recipient may alter the properties and produce of the inserted matter. In fact, a child should never be vaccinated without its state of health being first clearly ascertained, and any defects capable of relief being scrupulously remedied. The state of the weather, again, is of the utmost consequence to vaccination; this should never be performed in a sickly season, or during very hot weather. In either case it may happen that the matter will not take, or that it will run an unhealthy course. A very common consequence of vaccinating in hot weather is a secondary cutaneous ailment—papular, pustular, vesicular, or furfuraceous. Sometimes this trouble is lasting, and gives the parents the idea that it is the sole consequence of vaccination; against which they forthwith acquire a prejudice they never fail to utter within the length and breadth of their acquaintance.

These are things, amongst many others we could name, that have operated to the injury of the cause of vaccination. The prejudices of vulgar minds are easily ministered to, and not easily overcome; for which reason it especially becomes us, in all our professional intercourse with the world, to guard against imposing upon it, and upon ourselves, as much as possible. "*Little errors*," as the Chinese proverb says, "*like straws thrown upwards, show best the true nature and course of the current*"; and few errors commit a man more to the invective and prejudice of party than small ones. The common opinion of society is, that if an individual



fail in trifles he is sure to be wanting in matters of greater moment—a man who cannot pay pence is not likely to pay pounds! For the same reason, a severe operation in surgery may be unsuccessful, because the very nature of it involves a certain risk, and the operator get no blame; but if he fail in a minor performance, which the public opinion will tell him “any child might manage,” he will lose *caste* for ever. It may seem a trifling thing to talk about, but the practitioner may take our word for it, it is no trifle to have a bad case of vaccination!

The objections to revaccination are all in the same category with those already named. They are either the offspring of popular ignorance and prejudice, or they are suggested by certain failures, capable of obviation, in the surgical part of the process. A notion prevails, that dates its existence nearly half a century back, and is stupid enough to have deserved an explosion long ago, that a second vaccination always carries more danger with it than the first. There is no truth whatever in the supposition. Certainly, many cases have occurred illustrative of both local and constitutional disturbance; but these are all intelligible according to the propositions already laid down. We do not believe that the slightest trouble will ever be the result of this most wise precaution, if the means of it be observed and applied with ordinary discrimination and judgment. It has lately been our opportunity to see two people, parents, revaccinated from their own child. In the father an imperfect pock rose, and passed away without any inconvenience, local or general; in the mother, on the contrary, an angry pustule arose, painful at first and itching afterwards, never maturing, but leaving an ecchymosis the size of the palm of the hand, that threatened ulceration. The matter, of course, was the same in these two cases, and the different results of its application could only be due to the relative states of health of the parties subjected to its influence. A case has lately been going the round of the medical press, illustrative of the baneful effects of revaccination. We have no doubt of its originating from some or other of the causes we have enumerated. Nothing but common precaution is wanted to free vaccination from every charge of inefficacy or injury. We hope the hints we have thrown out will not be without their influence upon the profession.

#### THE ROYAL SOCIETY.

A CONTEMPORARY—under bad advice and the influence of a personal bias much to be pitied—having published a number of mistakes and misstatements, with an evident design of injuring the characters and repute of many Fellows of the Royal Society, we are authorized to give the following brief corrections:—

The Marquis of Northampton never has resigned the Presidentship, nor did he ever intend to make such a resignation.

Although a committee was appointed to consider the question of a supplementary charter, it is not now sitting, and has some time since delivered in its report to the Council.

The proposition of a supplementary charter,

so far from being opposed by the Marquis of Northampton, originated in his own suggestion.

Nothing is known, or can be known, about the provisions of the supplementary charter, should one be proposed—for the obvious reason, that the Council have as yet expressed no opinion on the subject.

The assertion that it was ever intended to reorganize the committees is wholly unfounded.

The statement that a certain journal has, “single-handed,” effected great changes, or any changes, in the Royal Society is wholly unfounded; and the fact that these misstatements are made “single-handed” is offered as a favourable instance of the judgment and discrimination of the *other* portions of the public press. The question of a supplementary charter—the only question that involves a change—was mooted by the Marquis of Northampton in November last, long before the Council was honoured by the abuse of the *Lancet*.

We have only to add that the misstatements and abuse which our contemporary has bestowed on the members of this society, especially on its Secretaries, have excited no higher emotions among the Fellows than disgust and contempt. The attacks on Dr. Roget have been at once as ridiculous and harmless as they have been evidently malicious and personal, and of themselves show, in the words of the Marquis of Northampton, “how much accuracy may be expected in this journal’s other statements.” The vituperations have been utterly unworthy of notice; and no one who knows either Dr. Roget or his assailant would condescend to take the trouble of a defence.

#### MEDICAL REGISTRATION BILL.

The Society of Apothecaries, having reason to believe that the profession at large are very imperfectly informed of the provisions of the bill introduced into the House of Commons at the close of the last session for the registration of medical practitioners, desire to state some of the changes in the law which the bill would in their opinion have effected, and in so doing to explain the grounds on which the society felt it their duty to oppose the further progress of the measure.

The bill purports to be “A Bill for the Registration of Medical Practitioners in Great Britain and Ireland,” or, as its title is quoted in the schedule of the Bill, “An Act for the Registration of the *legally qualified* Practitioners of Medicine in Great Britain and Ireland.” A bill professing no other object than to secure an authorized registration of legally qualified practitioners, in medicine was unlikely to provoke opposition from any quarter, and had the Society of Apothecaries been content to take the measure upon trust, and to judge of the scope of the bill from its title, they would have given a ready assent to its passing into a law.

The bill, however, upon examination, appeared to the society to propose other objects than a registration of legally qualified practitioners, and to contemplate important changes in the law, of the expediency of which the society entertained very grave doubts, which subsequent consideration has only served to confirm.

To enable an individual to engage in the practice of medicine in England without committing a breach of the law, certain known qualifications are demanded from him. It is unnecessary to specify those qualifications, as they are familiar to the members of the medical profession. Suffice it to say, that as the law now stands, an individual who may have acquired a legal qualification to practise as a physician, surgeon, or apothecary in Ireland or Scotland, is not entitled in respect

of such Irish or Scotch qualification to practise as a physician, surgeon, or apothecary in England; and, therefore, if an act were to pass which directed a registration of the legally qualified practitioners of this country, such persons as were in possession only of a qualification to practise in Ireland or Scotland would not be entitled to claim registration under it. It will be observed, that the society are not at present expressing any opinion upon the expediency of such a law; they are simply stating that such would be the operation of an act which provided for the registration of the legally qualified practitioners of *this* country. Now, the bill in question proposed to authorize the registration on the *English* register of any person who should have taken a degree in medicine at any Irish or Scotch university, or have obtained a diploma, certificate, or license from any Irish or Scotch college or hall, and any such person would, as a result of such registration, have acquired the rights and privileges of a legally qualified English practitioner. Such at least is the opinion which the society have formed from the language of the bill; and it is, of course, from the language of the bill only that the profession or the public can judge of its intended operation.

If it was in fact the intention of the bill to admit on the English register all persons who had obtained a qualification to practise *any branch* of the profession in *any part* of the three kingdoms, and to give to such persons, on obtaining a certificate of registration, all the privileges of an English practitioner, it is obvious that an important change in the law was contemplated, and that the legal right to practise medicine in this country would have been conferred on a very large class of individuals who do not at present enjoy that right.

Assuming for a moment that it *was* the intention of the bill to effect this change in the law, the question arises, is such a change expedient? Is it advisable that an individual who has received his education and examination, and obtained his license or diploma in one part of the United Kingdom, should be entitled to practise without restriction in every other part of the kingdom?

The opinion which the Society of Apothecaries have formed upon the subject is this. The society have no objection to the establishment of a perfect reciprocity of practice between the medical practitioners of the three kingdoms, *provided* such reciprocity of practice is established on the basis of a uniformity of education and examination. It is quite possible that the course of study pursued in one school of medicine may differ very materially in quality and extent from the course of study pursued in another; and it is also quite possible that the examination to which the candidate for a license to practise is subjected by one examining board may differ essentially in tone and character from the examination to which he would be subjected by another; and it is reasonable to expect that, in the absence of some controlling power, such a difference would in fact be found to exist between the different examining boards of the three kingdoms. Particular examining boards would soon acquire the reputation of being satisfied with a less extensive course of study, or with a less searching examination, than others, and a temptation would be held out to students to seek their license to practise from boards enjoying this species of reputation—a temptation which, it is to be feared, they would in too many instances be found unable to resist—and if no check existed to interfere with an option on the part of students to present themselves for examination in whatever part of the kingdom they pleased, the society anticipate that the standard of qualification which would be reached by the generality of students would be considerably lower than that which is at present attained.

Although the effect of the bill in question would have been, as the society believe, to authorize any one, who had acquired a diploma from any examining board in any part of the United Kingdom, to practise without restriction in every other part of the kingdom, yet it did not attempt to make any provision for ensuring a uniform standard of education and examination throughout the whole kingdom; and, in the absence of such provision,



the society, for the reasons already stated, think the bill in this respect highly objectionable.

If it should be said that the society have misapprehended the purport of the bill; that its object was simply to secure a registration of all such medical practitioners as had satisfied some competent authority of their having acquired a certain amount of professional knowledge, and thus enable the public to distinguish between those who had been educated as medical men, and those who had not; and that the bill did not propose, by admitting such persons to registration, to give them any legal title to practise which they did not already possess: the society can only reply, that they are advised that the actual operation of the bill would have far outstripped any such intentions; and, that such would have been the case, the society think will be apparent from the following considerations.

Under the provisions of the bill all persons who had obtained a medical degree, diploma, or license, from any university, college, or hall in either of the three kingdoms, were entitled to registration in England. Take, for instance, the case of an individual who had obtained a medical degree from a Scotch university. Such a degree, as the law now stands, confers no right to practise medicine in England; but it would have entitled the graduate to demand a certificate of registration under this bill. The form of the certificate is given in the schedule, and is important. The registrar certifies that, by virtue of the powers vested in him, by "An Act for the Reistration of the legally qualified Practitioners of Medicine in Great Britain and Ireland," A. B. has been duly registered according to the provisions of the said act, as a member of the Faculty of Medicine of England, and that he is entitled to all the powers and privileges conferred by the said act." Now, supposing the bill had done nothing more than entitle the graduate in question to the possession of this certificate, could it have been contended for a moment, that an individual who had been registered under an act providing for the registration of *legally qualified practitioners*, and whom the law had accredited as a member of the Faculty of Medicine of England (whatever the meaning of that term may be), was not *legally qualified* to practise medicine in England? The bill, however, did not allow the question to rest upon the form of the certificate of registration. Not only did the bill propose to exempt persons possessing the certificate from being summoned on juries, and from serving corporate, parochial, and such like offices, but the bill, as originally introduced, after providing that no person who did not possess the certificate should be capable of acting in the capacity of a medical officer of any public institution, proceeded to enact, that "Wherever by law it is provided that any act shall be done by a physician, surgeon, apothecary, or medical or surgical practitioner, by whatever name or title called, such provision shall be construed, after the passing of the act, to mean a person possessing a certificate in force according to the provisions of this act, and such persons only." The language of this paragraph appears to admit of only one construction, namely, that the possession of the certificate was to confer a legal title to practise.\*

It is for the general practitioners of this country, gentlemen possessing the diploma of the College of Surgeons, and the certificate of the Court of Examiners of this Society, to consider whether it is advisable that the law should merge all distinctions between themselves and an individual whose only qualification, for example, might be the diploma of a master in surgery from Glasgow, or a license from the Apothecaries' Hall of Dublin; that such an individual should be deemed in point of law equally eligible with those who have acquired a qualification, both in medicine and surgery, to hold all medical and surgical appointments in this country; and that this change in the law should be effected without any accompanying provision for a uniform standard of education and examination being maintained in the various licensing boards of the kingdom.

\* This paragraph was omitted from the bill as amended in committee.

It will have been observed, that the certificate of registration testifies that the individual named therein has been registered, according to the provisions of the act, as a member of "the Faculty of Medicine of England." There is no institution in England known by the name of the Faculty of Medicine, nor is there the most distant allusion in the body of the bill to the existence of such an institution, or to any intention to create one. The term conveys no definite idea of what is meant, by membership in a faculty of medicine; and it would be idle to speculate upon what may be intended, where nothing certain is expressed. The society, therefore, can only invite attention to the fact, that whatever the particular qualification may be in respect of which a medical practitioner may claim registration, whether it be as a graduate of Oxford or Cambridge, a fellow or licentiate of the College of Physicians, a fellow or member of the College of Surgeons, an apothecary in practice before 1815, or a licentiate of the Court of Examiners of this society, the certificate of registration which will be granted to him, and the possession of which will be the only legal evidence of his being entitled to the privileges and exemptions of a medical practitioner, will recognise him only as a member of a faculty of medicine which the bill neither finds in existence nor proposes to create.

Here, therefore, was a measure which compelled every medical practitioner who was not prepared to forego privileges and exemptions which he enjoys under the existing laws, and which are essential to the due exercise of his profession, to register himself in conformity with its provisions. The registration consequently was, to all intents and purposes, a compulsory registration, and so far no reasonable objection can be urged; because a voluntary registration would be a partial one, and a partial registration would in some respects be worse than no registration at all. But having compelled a physician to register himself in respect of his degree or license, or the member of the College of Surgeons in respect of his diploma, or the licentiate of the Court of Examiners of this society in respect of his certificate, it surely would not have been too much to expect that the certificate of registration should embody a recital of the fact accordingly, instead of an official announcement that the individual has become a member of an institution existing only in imagination, and having no apparent end or object of existence, except to reduce to a nominal equality all orders and degrees in the profession.

In the opinion of the society, a bill containing provisions such as have been adverted to (and the society have abstained from all comment on matters of detail) was not a measure to be hurried through Parliament, at the close of an unusually protracted session, without time being afforded for receiving or even asking explanation as to the intentions of its framers; and the society, therefore, in the discharge of an obvious public duty, resorted to the necessary steps for expressing the objections which they entertained to the bill passing into a law.

Apothecaries' Hall, Oct. 7, 1846.

## MISCELLANEOUS CORRESPONDENCE.

### MEDICAL REVIEWERS AND MEDICAL PUBLISHERS.

Oct. 13.

SIR,—I congratulate the medical profession in having in you an impartial reviewer, uninfluenced in any way by the bookselling trade.

I consider that you hold the same place in the medical that the "Athenæum" does in the literary world; and I hope that, as you possess as much talent, you will be as successful as that periodical.

You may remember, Sir, the necessity which existed for such a work, it being well known, at the time of its first publication, that the only weekly review (the "Literary Gazette") was the property of certain of "the trade"; and that no author had the chance of a fair review, if his work was not published by one of the "clique." So is it now with the "Medical Gazette" and the "Lancet."

The first being influenced by Longman's, and the other by Churchill.

In proof of my last assertion, I have taken the trouble to look at the reviews for the last twelve months in the "Lancet," and I find them to be between twenty and thirty in number; the greater portion of which are books published by Churchill, all of them being favourably noticed, and some of them praised to the uttermost.

Again, too, in the "Lancet" of last week, out of nine books received for review, there are as many as six recently published by Churchill; while I have known works published by other booksellers to remain unnoticed for months! Is this fair, or just, to the rest of the trade?

Now, Sir, I think you will agree with me, that one of these conclusions is self-evident—either that the report which I have heard twenty times repeated in the "Row," that the "Lancet" has become the sole property of Churchill since it left Essex-street, is correct; or that there is an "understanding" in book-reviewing not unworthy of a "consideration," as well as in post-mortem examinations on coroners' inquests.

I am, Sir, your obedient servant,

A LONDON PUBLISHER.

### ON THE POTATO DISEASE, OR EPISOLANIC.

[To the Editor of the Medical Times.]

SIR,—Much has been and is being said on this subject by every grade of people, from the nobility downwards; and the variety of the theories advanced only tends to prove the mystery and the uncertainty which envelops the subject. But there is one doctrine advocated that is likely to prevail, viz., that atmospheric, or rather meteorological, influence is the true source of the potato disease.

With a view of strengthening this doctrine, and to modify it a little, I beg leave to propose a few observations, as I am myself a sufferer, and am practically acquainted with the disease.

It is said by those who have had the opportunity of observing several species of the genus solanum, this year, that they are generally affected by the prevailing disease; if such is really the case, it serves to show that last autumn and summer were inimical to the genus solanum in the same way that 1845 was to the crop of wheat, or that some seasons prove to hops, &c. I have therefore called it *episolanic*, as analogous to epidemic (which is only properly applied to disease of the people).

It is well known to botanists that all plants are subject to a variety of diseases; many species of plants are subject to diseases peculiar to themselves; some families of plants have peculiar diseases only common to them, while other groups are only affected by those that are common to most plants, such as the common mildew, the curl blight, the wet blight, the drought, the starving, the cold, the fungous, the scorching, the animalcule, and insect blights, besides several other agrotal appearances which are produced by the various noxious agents to which all plants are exposed.

We must remember that the potato is an exotic, and very nearly as tender a one as the cucumber; can we then wonder that its tender constitution should be destroyed by some noxious agent in the atmosphere? Although the solanum vulgatum, or common nightshade, is a British plant, yet it will not bear the least degree of frost, which proves that the genus is a peculiarly delicate one, even in its own country.

Dr. A.T. Thomson published his opinion a few days back, in a daily paper, respecting the potato disease, wherein he supposes that the potato is weary of its labour in feeding mankind, and that it is likely to become extinct. He suggests that the potato should, in future, be raised frequently from seed instead of from the tuber; I think that the hint is a very valuable one; and that the potato ought to be raised from the apple occasionally. But it is impossible to concur with Dr. Thomson, in supposing that the potato is likely to become extinct, or that the plants thus raised from seed will escape the disease.

I have two acres and a half of what is called here the "London oval potato," about one-third of which is diseased; and there are in the same (which



is on a dry slope) about a quarter of an acre of seedling potatoes raised from seed in the year 1844. The seedlings are much finer, cleaner, and more productive than the others; yet both seedlings and those raised from tubers in the old way are equally affected by the disease; therefore Dr. Thomson's theory, though a valuable one, is no prophylaxis to the disease.

I have also three acres of a coarse kind of potato which were growing vigorously till the storm of the 3rd or August, when the field became overflowed by the Dec, and from that day the leaves blackened, the stalks withered, and the young tuber's growth was completely arrested, so that I had only five sacks of potatoes from the whole field.

I cannot say whether the crop was ruined by the flood or by the prevailing disease which made its appearance very soon after on dry and wet lands; but I have often observed that moisture is one element for its propagation, or rather it renders the plant more susceptible to receive the infection.

It is well known to us all that the atmosphere is capable of assuming various conditions that may prove detrimental to some organic being or other—such as too cold, too hot, too wet, too dry, too boisterous, too highly electrified, too much charged with poisonous ova, effluvia, miasmata, or gases, besides other conditions that we cannot comprehend; therefore it is easy to understand the manner (though not the cause) by which the disease originates.

The potato disease, or blight, has a peculiar effect on the constitution of the plant very similar to that of erysipelas on the human body; the cuticles of the tubers form patches of blisters which soon mortify the cellular pulp beneath them; in short the nutrition of the young tuber is arrested in the same way as undetached abortion sometimes takes place to a *fœtus in utero*.

Now, why should one plant be affected by the disease while the very next to it will be healthy? or why, under the same stalk, one half of the tubers will be sound and the other half diseased? These questions can best be answered by analogy drawn from human diseases, with which we are more conversant, such as epidemics. Whenever cholera, plague, fever, or the exanthemata prevail, we shall find that one man will receive the infection while the other escapes it; his escape must be attributed, not so much to his idiosyncratic non-susceptibility as to his *vis à tergo* at the time; and it must be allowed that every man's latent *vis vite* is as variable as the wind: for my own part, I should be unwilling to enter an infected house while my spirits were depressed either from bodily or mental cause.

Hoping, Sir, that I have been able to offer some remarks to confirm the doctrine of meteoric influence as the first cause of the potato disease, and the peculiar susceptibility of the potato itself as the second or proximate cause, I shall conclude by merely remarking that I have, four years ago, *demonstrated the existence of nerves in vegetables*, so that the analogue between animal and vegetable diseases will become stronger and stronger the more the subject is explored.

I am, Sir, respectfully your humble servant,  
JOHN WILLIAMS.

Pentre, near Corwen, Oct. 12.

#### DR. FORBES AND HYDROPATHY.

[To the Editor of the Medical Times.]

SIR,—If your correspondents, instead of turning "aghast" and writing in dismay or indignation on subjects about which they evidently are but ill informed, would make it a rule to use their eyes first and their pens afterwards, you might be saved some trouble, mankind some woes, and the medical profession some reproaches. Perhaps I am as far from being a hydropathist, properly so called, as either of your correspondents; yet ocular demonstration has satisfied me that there are diseases, beyond the reach of relief from ordinary medicine, which may be, and are, frequently cured in hydropathic establishments.

Unfortunately there is no royal road to knowledge. To obtain it we must employ some means, and take some trouble. If medical men make it a point of conscience never to place confidence in

the observations and researches of others, and will not inquire for themselves, I cannot conceive how it is possible for them ever to do justice to any new doctrine which at all militates against the routine knowledge which was taught them in the schools. The way I obtained my knowledge of the merits and demerits of hydropathy was this:—I had long regarded the so-called hydropathy as an old and much-esteemed friend in a new face, and clad, perchance, in somewhat better attire. I, therefore, was naturally anxious to ascertain whether this new clothing was or was not an improvement on the old. For this purpose I betook myself to Boppard, on the Rhine, where was a hydropathic establishment, at which Mr. Herbert Mayo, of scientific celebrity, officiated as English medical officer. Here I remained for nearly two months, and, for my my trouble, I obtained the following advantages:—

1. In case any intelligent patient happens to ask my opinion of hydropathy, I can now answer him in a rational manner, and am not reduced to the humiliating necessity of striving to conceal my ignorance by indiscriminately abusing it.

2. I have been of service to some by cautioning them against trying the treatment, when I was satisfied, from the nature of their diseases, that it was not applicable to their particular cases. And here I can from experience assert, that many a patient who would not heed the advice of his medical attendant if he saw that it was dictated by ignorant prejudice, will thankfully yield to his opinions if he sees that they are the result of examination and inquiry.

3. I have recommended a course of cold-water treatment in a hydropathic establishment, in more than one case, where I thought that benefit to my patient might arise from it; and I am happy to say that the result has proved the correctness of my opinions.

4. I saw sufficient at Boppard fully to satisfy my mind on the following points:—1st. That in certain diseases, more especially in chronic rheumatic gout; in secondary syphilis, in general debility resulting from excessive mental or bodily toil, and in a few other chronic diseases, the treatment is most valuable and efficacious; and cures may be effected by it in cases where every other means has been unavailingly tried. 2nd. That with proper care, and in scientific and honest hands (like those of Herbert Mayo for instance), the hydropathic treatment, consisting of sweatings and bathings, is wholly unattended with danger; but that it is highly dangerous when practised by the ignorant or dishonest. 3rd. That though the mode of living, the freedom from anxiety and care, the pure country air, and regular exercise, may in some great degree conduce to the restoration to health of the patients in a cold-water establishment, yet that this is not all, but in certain cases cold water, as there applied, does undoubtedly exert a positive curative influence over disease. 4th. That it is absurd to suppose that the hydropathic treatment is in itself sufficient to cure all curable diseases, both acute and chronic.

I hope that these few observations may suffice to allay the indignation of your correspondents, or, at any rate, lead them to look deeper into the matter. They may depend upon it, that unjust prejudice will rather have the effect of attaching undue importance to hydropathy, than of injuring it. Had it not been for the unmerited opposition to which it has been exposed, in all probability it would never have been elevated to the rank of a "pathy" at all; but would simply have been considered—what it really is—a very valuable auxiliary to medicine. I knew the case of a gentleman who had been long under first-rate medical treatment without benefit. He asked the advice of his ordinary medical attendant about trying hydropathy. Instead of considering the matter, and giving an unprejudiced opinion, the practitioner commenced a furious tirade against both professors and practice; predicting certain destruction to his patient if he ventured across the threshold of a cold-water establishment. The patient left the house disgusted with the bigotry he had witnessed, and more firmly resolved than ever to try the system. In a few weeks he was cured of a complaint which had afflicted him for some years. But what was the effect on the

medical man? He not only lost the confidence of this patient, but of others also, because he had predicted what had never come to pass; and the treatment obtained more credit than it was justly entitled to.

In the main I agree with Dr. Forbes. He has arrived at nearly the same conclusions by studying the writings of the hydropathists as I have by observing their practice. If these things are true, Dr. Forbes deserves well of the profession for placing them before the members in their true colours. The attempt to conceal them would be a traitorous act on the part of a journalist who occupies the position which Dr. Forbes holds. He may be regarded with angry eyes now, by some who will not examine these things for themselves; but in a few years he will receive his reward.

I am, Sir, your obedient servant,

GEO. HILBERS, M.D.

Norwich, Oct. 12.

WAR-OFFICE, Oct. 9.—5th Dragoon Guards—Assist. Staff Surgeon William Arden to be Assist.-Surgeon, vice Affleck, promoted in the 74th Foot. To be Surgeon—Assist.-Surgeon Charles Dawson, M.D., from the 42nd Foot, vice Dolmage, removed from the 8th Light Dragoons. Hospital Staff—Surgeon Alexander Cumming, from the 74th Foot, to be Staff Surgeon of the First Class, vice John Hall, promoted. Charles Lockhart Robertson, M.D., to be Assist. Staff Surgeon, vice Arden, appointed to the 5th Dragoon Guards.

OBITUARY.—At Loodianah, Aug. 2nd, James Stewart, M.D., surgeon to the 11th Regiment of Light Bengal Cavalry. At Edinburgh, 7th inst., Patrick Charles, M.D., of Putney. On Saturday, the 26th ult., in his 68th year, Mr. William Mason, M.D., of Carnarvon. On Saturday, at his house, in Upper Duke-street, William Gill, surgeon, in his 65th year. On the 2nd instant, at Clarence-square, Cheltenham, Congreve Selwyn, Esq., M.D., in the 48th year of his age. On the 7th instant, at Gray's Thurrock, in the 31st year of his age, Henry Ashton Meeson, M.D., second son of John Meeson, Esq., of the same place. At Sukkur, on the 25th of July, in the 31st year of his age, William Braikenridge, assistant-surgeon in the East India Company's Bombay Service, acting as surgeon of the 11th Native Bombay Infantry, eldest son of Mr. Braikenridge, of Bartlett's-buildings, London.

#### MORTALITY TABLE.

For the Week ending Saturday, Oct. 17, 1846.

Causes of Death.	Total.	Average of	
		5 sum- mers.	5 years.
ALL CAUSES.....	905	898	968
SPECIFIED CAUSES...	903	892	961
Zymotic (or Epidemic, En- demic, and Contagious)			
Diseases.....	189	201	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other			
Diseases of uncertain or			
variable Seat.....	93	99	104
Diseases of the Brain, Spinal			
Marrow, Nerves, and			
Senses.....	130	155	157
Diseases of the Lungs, and			
of the other Organs of			
Respiration....	276	227	294
Diseases of the Heart and			
Blood-vessels.....	34	23	27
Diseases of the Stomach,			
Liver, and other organs			
of Digestion.....	86	87	72
Diseases of the Kidneys, &c.	9	6	7
Childbirth, Diseases of the			
Uterus, &c.....	14	9	10
Rheumatism, Diseases of			
the Bones, Joints, &c. ...	7	6	7
Diseases of the Skin, Cellu- lar Tissue, &c. ....	1	1	2
Old Age.....	32	52	67
Violence, Privation, Cold, and Intemperance.....	32	26	26



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## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY.

### France.

#### ACADEMY OF SCIENCES.

Meeting of Oct. 12; M. MATHIEU in the Chair.  
The meeting was entirely taken up with subjects foreign to medical science.

#### ACADEMY OF MEDICINE.

Meeting of Oct. 13; M. ROCHE in the Chair.

##### THE PLAGUE.

The fifth scientific conclusion, in which it is stated that "the incubation of the plague does not last more than one week," was adopted.

The sixth conclusion was also adopted. But a long debate ensued upon the seventh, in which new sanitary measures are proposed:—M. Gaultier de Claubry was of opinion that, in proposing new regulations, the Academy outstepped its duty, and that it would be more desirable merely to state that considerable modifications in the present order of things were called for, than to specify in what these alterations should consist.—M. Dubois (of Amiens) also objected *in toto* to the last conclusion, which he did not consider to be in harmony with the results of experience, or even with the doctrines professed in the report. The commission proposed that quarantines and lazarets be maintained, in order to prevent the possible introduction of the plague into France. It was therefore necessary to show that the plague might be imported, which the commission had completely failed in doing. M. Dubois then repeated the objections which he had already raised against the ten instances of imported plague contained in the report, and endeavoured to show that they had not by any means as much importance as had been granted to them by the commission. Quarantines and lazarets were now judged useless by all those who had travelled in the Levant; whether they were by the commission deemed useful or superfluous, our age would see their downfall. In twenty years, perhaps sooner, they would live only in the recollections of men; and if the Academy were to give its support to these superannuated institutions, that scientific body would thereby only compromise its reason, its science, and its authority. M. Dubois concluded by demanding the complete rejection of the seventh conclusion.

#### GONORRHOËAL OPHTHALMIA, BY M. JOBERT (DE LAMBALLE).

A man, aged twenty-three, was admitted into the wards of the Hospital Saint Louis on the 5th of July, 1846. For five months he had been subject to a gleet discharge, when suddenly one of his eyes became slightly inflamed; in order to relieve the pain, he imprudently followed the advice which he received, to wash the eye with urine; the gonorrhœal secretion had not ceased. The next day after the dangerous application, both eyes were violently inflamed, and when he entered the hospital the lids were purple, considerably swollen, and when

separated, which could be done only with great difficulty, showed the conjunctiva of the eyeball and lids in a state of intense injection, of a scarlet colour, and forming a prominent chemosis around the margin of the cornea; purulent matter, mixed with blood, escaped between the lids, a throbbing pain was experienced, and impossibility to bear even a mitigated light. The pulse was quick and strong, the mouth parched, and the nights sleepless. During the first *three* days, blood was removed *five* times from the arm and *twice* from the foot; purgatives were exhibited, and the lunar caustic carried all over the mucous membrane and cornea; cold applications were kept continually in contact with the eyes. Under the influence of this energetic treatment the symptoms subsided, but left an ulceration of the cornea, which ended in perforation of the membrane and adhesion of the iris to the orifice. On the 18th of August the patient left the hospital; vision was not destroyed, but considerable sensibility to light was still present, and a permanent stain had formed on each cornea.

This case was therefore so far fortunate that vision was not lost, but perforation of both corneæ took place, notwithstanding a treatment which was most active: venesection performed seven times during three days, local cauterization, purgatives, &c., certainly show that the dangerous nature of the case was fully appreciated by the eminent surgeon to whom it was confided. We have seen more fortunate results from less debilitating measures; and the severity of the disease, coupled with its frequency, induces us to lay before the readers of the MEDICAL TIMES the opinions entertained on the subject by Professor Ricord, whom experience has led to adopt a line of conduct different, in some respects, from that followed by Dr. Jobert.

Is the malady a result of direct contact of the gonorrhœal secretion with the eye, or is it the produce of metastasis? On these points pathologists are at variance. M. Ricord believes that direct contagion is the most frequent cause of the disease, because it is more common in men than in women, and because one eye is oftener affected than both—a circumstance which metastasis cannot explain. The Professor admits, however, the existence of a peculiar form of gonorrhœal ophthalmia in which it cannot be traced to the same origin. In this form the patient is always a person who has suffered more or less from rheumatic or catarrhal affections; and both eyes are usually attacked; in fact, the genital gonorrhœa acts only as a stimulus by which the catarrhal or rheumatic predisposition is brought into action. True gonorrhœal inflammation, generally depending upon positive contagion, affects, therefore, usually one eye only; whereas the other form, due to a catarrhal habit, invades both. But it is far from uncommon to see the contagious variety pass from one eye to the other, and mostly from the secretion of the diseased eye running into the healthy one over the bridge of the nose—a mode of propagation facilitated by decubitus on the

healthy side. It is not proved that one eye is more subject to the malady than the other.

With regard to the symptoms, M. Ricord conceives that fever is less common in the form which results from direct contact of pus with the eye, than in that which is the result of a catarrhal predisposition. Swelling of the lids sets in rapidly, and the eye may then be truly compared to an abscess, the secretion of which is imprisoned between the lids and the eyeball, by the spasmodic contraction of the orbicularis palpebrarum. Instead of œdema, pus may be infiltrated under the conjunctiva; the swelling of the lids is then less considerable, and eversion of the lower lid is occasionally observed; but phlegmonous chemosis surrounds the cornea, and binds it in an iron-like frame, so as to produce its mortification by pressure. The rapid progress of the disease, endangering the eye in the space of two, three, or four days, makes it urgent to resort without hesitation to energetic measures, likely to arrest its pernicious tendencies.

As to *diagnosis*, the violence of the inflammation has in itself nothing peculiar to this form of ophthalmia; neither do the presence of granulations afford any degree of certainty, nor can the colour of the part, or of the secretions, give any positive information. One circumstance alone must be taken into very serious consideration, it is the pre-existence or coexistence of urethral gonorrhœa; it is, besides, far safer to take simple ophthalmia for gonorrhœal inflammation of the eye, than to commit the contrary mistake.

Catarrhal inflammation of both eyes is much less severe than the other form, and does not threaten destruction of the organs of vision; and may be distinguished by the simultaneous affection of the two eyes, the peculiar form of radiated injection around the cornea, and the pre-existence of rheumatic pain. In the variety due to contagion, antiphlogistic treatment *alone* is insufficient: it forms a useful adjunct to the medication, but cannot constitute an exclusive method. Mercury, copaiva, and cubebs are useless; and irritation of the urethra for the purpose of inducing a return of the discharge may be looked upon as a dangerous absurdity. Far from fearing that repercussion of the urethral gonorrhœa may be productive of metastasis on the eye, M. Ricord states that he has never known ophthalmia to occur during the first days of the existence of urethritis—an additional reason for the application of the methods which ensure an early cure of gonorrhœa.

The most important therapeutic measure in the treatment of ophthalmia consists in the well-directed and bold use of the lunar caustic. It may be used in solution, in powder, or in a solid form. The solution is the easiest of application: 3ss. of nitrate of silver to 3ss. of distilled water—such is the proportion to be employed; but its action is not limited to the diseased parts, and extends also to those which have remained healthy. In infants and unmanageable adults it is, however, a great resource. The powder can only be applied in an un-



equal manner, and the Professor, therefore, prefers the solid pencil. The inferior lid being first turned down, the pencil is lightly carried over it, so as to whiten its surface; the same operation is repeated for the upper lid, and for the spots of the ocular conjunctiva which are most severely affected: the cornea should on no account be touched. An injection of water is made immediately afterwards in order to wash away uncombined portions of caustic; four, five, or six hours later, if the swelling and pain are undiminished—if the secretion is not thinner, more sanious, and less abundant—the cauterization should be repeated, and should be renewed a third and even a fourth time, in case the persistency of the symptoms happens to require it. When chemosis is very considerable it should be excised, and if purulent be freely scarified; these operations should follow, not precede cauterization, in order that hemorrhage may not interfere with the action of the caustic. During the two years which we passed in the wards of Dr. Rieord, as *interne*, eleven cases were admitted in which these precepts were attended to, and their value will be properly judged of when we say that the eyes were preserved in all the patients.

#### HOTEL DIEU.

##### CEREBRAL HEMORRHAGE—CLINICAL REMARKS, BY M. ROSTAN.

General cephalalgia cannot by any means be looked upon in the light of a prodromic symptom of apoplexy; headache is observed in most acute disorders, and is even much more frequently met with in other maladies than in cerebral hemorrhage; on the contrary, tingling and formication, limited to one half of the body, clearly indicate the approach of some important change of the cerebral hemisphere on the opposite side. Three orders of disease may produce loss of consciousness: disease of the heart, sudden shocks of the nervous system, and cerebral affections. Syncope is characterized by paleness, weakness of respiration and of pulse. In asphyxia precisely opposite phenomena appear: the face is purple, the eyes bloodshot, and the cause can usually be ascertained, the patient having been removed from a room filled with carbonic acid, or having been taken out of water, or found hanging by the neck; in a word, syncope and asphyxia will at all times be easily distinguished from apoplexy by the absence of respiration and of the pulse, or, at least, their extreme weakness.

These considerations lead the practitioner to refer at once loss of consciousness, in a case of apoplexy, to disease of the brain; it is, besides, an acute disorder, the patient having been suddenly struck down by the attack; all chronic affections can, consequently, at once be set aside. The acute maladies by which loss of consciousness may be occasioned are congestion, hemorrhage, meningoencephalitis, and local encephalitis. The first diminishes gradually from the first moment of its occurrence, and usually disappears some hours after its manifestation. Meningitis and diffused inflammation of the brain are attended with fever—a fact which is of utmost importance to the diagnosis. If, at the same time that the general symptoms point distinctly to acute disease, paralysis of any part of the body be present, a limited inflammation, a red softening of a portion of one hemisphere, may be asserted to exist. It is not so easy to establish the diagnosis between cerebral hemorrhage and the form of ramolissement which is not due to inflammation, particularly when the patient is more or less paralytic, and when the absence of details of the case leave the physician in doubt as to the previous existence of premonitory signs. Attentive observation of cases during an experience of twenty years induces Professor Rostan to state as a rule, that white softening of the brain is always ushered in by prodromata; such as tingling of the extremities, limited pain in the head, cramps in the limbs, &c.; in apoplexy, on the contrary, precursory signs are absent. The seat of hemorrhage is so constant in the side of the brain opposite to the paralysed parts of the body, that not one well-authenticated fact has yet been brought forward in which the contrary has been observed. Thus may be solved a problem which at first sight would appear inexplicable, viz., “in a case of complete loss of con-

sciousness, determine the nature, seat, and extent of the anatomical changes by which it has been occasioned.”

A NEW OPERATION FOR THE DESTRUCTION OF INTERNAL PILES, BY F. Z. AMUSSAT, M.D., Member of the Academy of Medicine.—This method consists in the circular cauterization of the pedicles of the tumours with the solidified caustic of Vienna. The dangers which attend excision, and the hemorrhage so frequently observed as a consequence of that operation, have induced many practitioners to prefer the actual cautery; but this method is one of difficult application, and the results which it yields scarcely compensate for the suffering which it causes. The new operation, according to the inventor, is more fortunate in its results, exposes the patient to no danger, and less pain than the other methods. M. Amussat does not think it necessary, after destruction of internal piles, to remove also those tumours situated below the sphincter; he is of opinion that they materially subside after the cure of the internal hemorrhoids. The intestine having been cleared by a dose of castor oil, exhibited one day before the operation, the hemorrhoidal tumour is seized with a forceps, and, in order to protect perfectly the surrounding parts, they are isolated by the application of wooden or ivory blades, analogous to those of paper knives. Another forceps, containing the caustic on the inside of its branches, is then passed round the neck of the swelling, and cold water is injected over the tumour with a syphon throughout the operation, viz., two minutes. The hemorrhoid is then emptied of its blood by a puncture with a tenaculum, a cold injection is made, and the parts are reduced. Three cases of success are reported; no accidents followed the use of the caustic.

DAN. M'CARTHY, D.M.P.

#### Italy.

CLINICAL OBSERVATIONS ON THE USE OF THE VALERIANATE OF ZINC.—M. Namias publishes in the “*Giornale per Servire ai Progressi della Patologia e della Terapeutica*” some remarks on the use of this remedy, which he says has not fulfilled all the promises made for it by its proposers. Experience, however, has, on the whole, according to M. Namias, been much less unfavourable towards it than it usually is towards other remedies which are put forth as extremely valuable. It appears, then, that sulphate of zinc will remain among the *materia medica*, if not as a specific in neuralgia, at least as a valuable remedy, especially in certain affections in which the variability of the symptoms disorder the diagnosis, although their first origin is evidently in the nervous system. M. Namias, in his communication, relates several such cases, the chief of which we have extracted. In the first case a lady had suffered for several months from pain in the precordial region, accompanied with so severe a sensation of tightness at the chest as to threaten suffocation. As she had previously had intermittent fever, her condition was attributed to obstruction of the *vena portæ*. Yet the intermissions of the attacks of dyspnoea, the healthy appearance of the tongue, and the soundness of the hypochondriac regions, which did not show the slightest tenderness when firmly pressed on, convinced M. Namias that the case was not one of venous congestion, but one of neuralgia, in which the use of the valerianate of zinc was rationally indicated. He prescribed at first, therefore, about two grains of the valerianate to be taken in two doses daily. This treatment did not immediately produce any benefit, but its effects, once commenced, proceeded slowly but steadily until the patient was perfectly relieved. The medicine was continued for six weeks, the dose being doubled after the first few days. At the end of the treatment the patient's health was so perfectly restored that mental emotions, which had always previously produced the worst effects, no longer exercised any injurious influence over her health. In the second case a lady had complained during several weeks of a painful sense of constriction of the gullet, with sudden headache and prostration of strength, which had much increased after an attack of spasms, the pulse at the same time be-

coming very feeble. She had previously been relieved from the same symptoms by means of musk. M. Namias prescribed the valerianate of zinc for a fortnight, in the same doses as in the first case. The patient recovered perfectly, and stated that she had never been so well as after the use of this remedy.

The following cases show in what order and to what extent bleeding and the use of the valerianate of zinc should be used in nervous diseases complicated with attacks of local inflammation:—

In his third case M. Namias attended a lady who was not only afflicted with neuralgia but also with rheumatic fever and inflammatory swelling of the throat. After having relieved the patient of the last two diseases by means of antiphlogistic treatment, she suffered from complete insomnia and a feeling of oppression at the thorax. The valerianate of zinc, given at the rate of four grains in the twenty-four hours, relieved her completely in about a fortnight. Pain in the left eye supervened, and reappeared several times during the day, each attack lasting from two to three hours. The valerianate was again administered—at first in quantities of four grains in twenty-four hours, and afterwards at the dose of eight grains in the same period. Within five days the cure was perfect.

The fourth case is that of a lady attended by M. Minich, who, by frequent abstraction of blood, succeeded in relieving an attack of apoplectic congestion attended with hemiplegia. The patient, however, still complained of pain in the occipital region. This pain was not periodic but intermittent. The application of leeches to the anus produced no relief. The valerianate was prescribed in increasing doses from three grains to five in the twenty-four hours, and continued during eight days. At the end of this time the pain had entirely disappeared.

In the fifth case, on the other hand, the valerianate was of no service to the captain of a vessel who was affected by giddiness and heaviness in the head, following a marked attack of congestion of the brain. Leeches to the anus, and the use of purgatives with an infusion of digitalis, gave prompt relief. M. Namias, wishing to know the toxic properties of this remedy, and whether it produces the same poisonous effects as the other preparations of zinc, performed several experiments to elucidate the subject. He gave to a middle-sized rabbit a drachm of the medicine, and to a second half a drachm, and in neither case were any ill effects produced. After the lapse of a few days he gave to the rabbit which had previously taken half a drachm of the valerianate, a drachm of the oxide of zinc. The animal died within forty-eight hours, and on examination the mucous membrane of the stomach and intestines was found in a state of active inflammation.

ON THE ADMINISTRATION OF THE SULPHATE OF QUININE IN CASES OF RHEUMATISM.—M. Fantonetti relates, in the same journal, eighteen cases of acute articular rheumatism in which the sulphate of quinine, although given in much smaller doses than is customary in the Parisian hospitals in the majority of cases, increased the fever, and brought on headache, vertigo, delirium, deafness, brilliancy of the eyes, &c. M. Fantonetti has, consequently, determined for the future not to exceed the quantity of a grain and a half every two hours, mixed with the same quantity of crystallized tartaric acid. Administered according to these principles, the sulphate of quinine was productive of much benefit, evidently shortening the course of the disease in numerous cases.

EXTENSIVE HYPERTROPHY OF THE SCROTUM REMOVED SUCCESSFULLY.—M. Cappelletti records in the same journal the particulars of a case of scrotal hypertrophy on which he operated successfully. The following are the chief particulars:—The patient was a Jew, aged fifty, born at Brod, in Poland. At the age of nineteen he quitted Brod for Keschnow, in Bessarabia, where he lived fourteen years, and whence he went to Bucharest, and thence to Constantinople; lastly, he removed to Jerusalem, where he lived five years. His temperament was lymphatic, and he had always enjoyed good health. About twelve years ago he observed small abscesses in the rectum. These broke, and formed fistulous openings; the hypertrophy of the



scrotum then commenced and proceeded gradually without causing pain. The tumour having attained about double the size of the head, and causing considerable difficulty in progression, the patient came to Europe to have it removed. The skin presented a normal texture; the penis was so retracted as to have nearly disappeared; the parts gave off an insupportable stench, and two fistulous passages led from the left buttock into the tumour. In operating, M. Cappelletti proposed to retain sufficient skin to cover the wound, and also to preserve the testicles if they were found sufficiently healthy. He, therefore, first made a longitudinal incision through the raphe, into which he afterwards carried two transverse cuts, one from each groin, so as to detach a kind of tegumentary flap on each side. These flaps he dissected up and raised on the belly. Afterwards, taking the spermatic cord as a guide, he found the right testicle, which, being healthy, was dissected out. The same proceeding was repeated on the other side. He then detached the rest of the tumour from the perineum. The cutaneous flaps were then brought together, and it was found that they covered the whole wound with the exception of a portion in the perineum. Points of suture were inserted, and the wound was simply dressed. A few hours afterwards the dressing was removed and some of the sutures extracted, on account of hemorrhage; this was arrested, and the sutures were reinserted. Union afterwards proceeded so rapidly that on the 26th day the patient was able to get up, the wound being perfectly healed. An examination of the tumour showed simple hypertrophy of the cellular tissue, neither the skin nor the tunica vaginalis being in the slightest degree diseased.

**RESEARCHES ON SCURVY.**—M. Novellis has published a paper on scurvy in the "Annali Universali di Medicina," in which he has well sketched the progress of the disease. The paper also contains numerous original cases of scurvy, and remarks on the cause, origin, and characters of the disease. According to M. Novellis' views, scurvy is always the same affection, whether it occur on sea or land; and it presents itself under two forms—one, apyretic or chronic, and the other attended with fever. M. Novellis proposes to call the latter kind scorbutic synochus—it being in fact nothing more than an inflammatory fever, complicated with symptoms of scurvy; although this fever is generally simple, it may induce sloughing of the gums and cheeks, and cause death. Its inflammatory nature is well shown by the results which follow antiphlogistic treatment; the means succeeding best being general bleeding, leeches to the gums, acid drinks, mild purgatives, and ice applied to the mouth. Scurvy is neither contagious nor infectious; its most useful prophylactic treatment consists, not in administering such and such remedies, but in improving the state of the general health of the persons exposed to the influence from which it arises. All vegetables which can be eaten raw are useful in scurvy, provided they are such as are easily digested. Thus lettuce and chicory are eaten raw with advantage, and spinach, chervil, and sorrel cooked. Farinaceous vegetables should be avoided. As regards the vegetables containing an acrid principle, such as celery, garlick, leeks, M. Novellis states that they are capable of inducing a state of scurvy when taken in excess. Nitrate of potass is preferable to all the other various pharmaceutical remedies which have been so loudly praised, and especially it is to be preferred to preparations of iron. The best topical application is a solution of chloruret of soda. M. Novellis states that, from the result of his experience, it would appear that salt, far from being the cause of scurvy, as has generally been supposed, is of great utility as a curative agent.

**ON THE POSSIBILITY OF EMPLOYING ELECTRICITY AS A DISINFECTING AGENT.**—M. Pezzoni has published in the "Memoriale della Medicina Contemporanea," a paper on this subject, in which he proposes a trial of electricity to medical men who may have opportunities of ascertaining its results. M. Pezzoni states that he has had no chance of putting the matter to the test, but

that the idea occurred to him, on hearing that Henry, of Manchester, had published in 1831, a means of decomposing the poison of smallpox and of the plague by the agency of heat. A commission, sent into Egypt by the Russian Government, is in fact at present occupied in investigating the value of heat. But, supposing their experiments produce an affirmative result, the employment of heat must, in many cases, be extremely inconvenient. Certain substances would be decomposed by it; others would lose their force. Besides, it would be difficult to decide on the precise degree of heat necessary in different cases, which would depend on the different conducting power of the substance submitted to its action. According to M. Pezzoni, all these inconveniences would not occur in the use of electricity for the same purpose. If, too, it be taken into consideration, that in many countries the plague commences and ceases spontaneously, only to recommence a little later, it will appear probable that, among all the explanations that have been given of the circumstance, the most likely is the one which attributes it to the action of the electricity that exists on all parts of the earth. This modifies apparently our condition, so as to render us more or less susceptible of the influence of the plague. When we see this agent produce stupendous meteorological changes, we can hardly refuse to admit that it possesses the kind of power referred to it in the present instance. M. Pezzoni then enters on the objections which may be urged against its use, the chief of which refers to its action being only manifested on the surface of non-conducting bodies, and not penetrating their substance. How, for instance, can it be affirmed that the electric action would penetrate the whole of a ball of cotton? Here M. Pezzoni falls back on the extraordinary properties of electricity, and the marvellous effects it is capable of producing. This, however, forms a very lame answer to the objection. On the whole, the proposition seems ingenious, and is at least worthy of a fair trial.

## ORIGINAL LECTURES.

### A Course of Lectures on Hernia,

By JOHN FLINT SOUTH, Esq.,

Surgeon to St. Thomas's Hospital, and Professor of Surgery to the Royal College of Surgeons.

(Delivered in the Theatre of the College, and revised by the Professor for the MEDICAL TIMES.)

#### LECTURE VI.

(Concluded from p. 45.)

#### UMBILICAL RUPTURE.

*Umbilical Ruptures—Comparative Frequency in Male Infants—Comparative Frequency in Females advanced in life—Size—Form and Treatment of Umbilical Ruptures—Operation for the Relief of Strangulated Umbilical Rupture.*

Umbilical ruptures are either existant at birth, or they are generally produced soon after, though occasionally they are formed at a later period of life, and not unfrequently during pregnancy.

*Congenital umbilical ruptures* depend upon the imperfect development of the front walls of the belly, the foetus remaining more or less, in this respect, in that early condition when the bowels have not yet been received into the cavity of the belly. Instances of this malformation have been noticed by Wrisberg in a foetus of ten weeks, and by others at a more advanced period. The protrusion varies in quantity: if a large portion of the bowels be contained in the distended integument of the navel-string, the child usually dies before birth; but if this be less great he may be born alive, and continue to live. By the protrusion into the navel-string the vessels are always more or less separated, so that a sort of triangular space is formed, the upper angle of which lodges the umbilical vein and the lower two the arteries; and the thinness and distention of the skin of the cord readily permits the bowels to be perceived through it. It is, therefore, advisable that at birth the navel-string should be examined to ascertain whether it

do contain any bowel, otherwise it may be tied in and the child destroyed, of which there are not wanting examples.

*Acquired umbilical rupture* may be produced in infants at any period between the separation of the navel-string and the third or fourth month; Desault says most frequently after the first month. It seems to result often from the child's crying violently, and in this way is accounted for the great excess of umbilical ruptures in male children over female children, under six years of age, in whom, of twenty-five cases noted by Malgaigne in one year, twenty-two were boys. From six to thirteen years the proportion had remarkably changed, so that of eight children, three only were boys who had this rupture. Between the ages of thirty and forty the proportion was still greater, being seven males to twenty-one females. After which it again diminished, so that from fifty to sixty years presented thirteen males to twenty-four females; and in the ten following years the numbers were equal, beyond which the females again exceeded. The total number noted were a hundred and ninety-four, of which eighty-six were males and one hundred and eight females.

In young children, in whom the disease appears to result from the yielding of the newly-formed scar on the navel-string, the rupture usually has a rounded form, and destroys the usual dimpled appearance of the navel; it is of greater or less length according to the protrusion, and more or less cylindrical; but the margin of the navel-hole is mostly distinct, and the diameter of the rupture does not usually exceed it. Very slight pressure returns it, and the finger may be pushed with it into the belly to a depth correspondent with the length of the protrusion; but directly the finger is removed, the whole swelling starts out again as with a spring.

Umbilical ruptures are more frequent in women who have been pregnant than in others, in consequence of the distention which the walls of the belly have suffered by the enlargement of the womb. Persons who are very stout are subject to it, and not unfrequently in dropsy of the belly the navel starts and forms a little swelling similar to that of young children; it, however, then rarely contains more than a little fluid which is forced from the cavity of the belly.

The size of umbilical ruptures varies considerably, especially in women who have large pendulous bellies; in such cases the tumour will sometimes descend to the pudendum, and contain a very large proportion of the bowels. An instance of this kind is preserved by a cast in St. Thomas's Collection.

In proportion as an umbilical rupture increases in size, it loses its globular form; and, though it enlarges the opening of the navel, it usually spreads far beyond, lapping over the walls of the belly like a spreading fungus, and by its weight dragging down towards the lap. The surface is more or less regular according to the protrusion and the quantity of fat in the cellular tissue: sometimes it has a large nodular form, and in one case upon which I operated it was contracted in the middle so as to have the shape of a figure of eight with a transverse depression caused by the irregular yielding of the cellular tissue, which dipped down so far as to divide the sac of the rupture into two chambers. Sometimes two sacs are found, an instance of which occurred to the elder Mr. Cline.

The protruded bowels in this rupture are generally considered to have a true or peritoneal rupture sac covered by superficial fascia of varying thickness and skin. That the smaller ruptures have peritoneal sacs there can be very little doubt; but it seems to me very uncertain whether large ones have. Sir Astley Cooper, indeed, mentions an example of the sac having been either absorbed or burst; and Mr. Stanley's case in St. Bartholomew's Museum, in which the front of the swelling consists "of fibres, irregularly interwoven and separated by more or less considerable intervals, in which there is no serous membrane, as if the peritoneum had undergone partial rupture or fraying from distention" (p. 532), appears to me only the beginning of the breaking through of the bowels, which at last are covered only by superficial fascia and skin, and these often so thin that



it seems scarcely possible to believe that there is anything like a perfect rupture sac. The rupture sac may not indeed always tear at one spot, so that as the bowels thrust through it sinks down on the inside of the swelling, but it may yield and burst in several places; and protrusions of omentum or bowel take place in corresponding number, and may even be strangulated in these holes, as mentioned by Sir Astley Cooper (p. 46).

*Treatment.*—It is usual and proper to endeavour, in young children, to assist the scar of the navel-string and the navel-hole in recovering their natural condition; and this is best effected by an ivory or cork hemisphere, with its convexity applied to the protrusion so as to thrust it back into the belly, and there retain it by confining the hemisphere with plaster, which is better than a roller, as that is apt to slip about. I am inclined to believe, however, as regards children, that, unless there be a very great disposition to protrude, and the abdominal muscles be continually exerted, the navel-hole will gradually contract itself, at the same time that the scar also narrows and becomes more tough and unyielding, so that the rupture is cured often, indeed, without any artificial assistance, as I have frequently seen.

When, however, an umbilical rupture is formed after the adult period, it rarely if ever is cured; but, on the contrary, continues increasing and acquires considerable size. The treatment, then, is merely palliative, consisting (if the bowel be returnable) of a simple shield which should be of sufficient size to overspread the belly at least two inches beyond the margin of the umbilical hole, and which is to be fastened by a broad belt strapped on the back. Sometimes a boss is placed on the middle of the shield of sufficient size to fill up the umbilical hole like a large cork. If the rupture cannot be returned, a large teacup should be fitted to the swelling, by which its increase is better prevented than by any other means. Very frequently, however, in spite of all endeavours, the swelling continues increasing; and bandage of any kind, except merely to support the tumour and prevent the dragging, is of little avail.

When an umbilical rupture becomes strangulated, the operation required is very simple, but needs great caution on account of the thinness of the coverings, which, if it be of size, are rarely more than the skin and superficial fascia. The incision should be T-shaped but reversed, through the skin; and the flaps having been dissected carefully back, the superficial fascia is exposed. This must be gently nipped up and cautiously opened, which usually at once gives admission to the sac. The condition of the bowel is then to be ascertained—whether it be adherent to the sac, or whether there be a septum dividing the sac into two chambers so that there is bowel in each. If the latter be the case, sometimes the bowel may be pulled out gently from it, but at other times it may be requisite to divide the septum and lay the whole into one; and this is absolutely necessary if the chamber first opened have not in it the mouth of the sac. Sometimes this division of the septum sets the bowels at liberty, and they can be returned without proceeding further; but if this cannot be done, the operator must carefully insinuate his finger into the umbilical opening at its upper margin, and then, passing the hernia knife in upon it, divide the stricture upwards in the course of the linea alba to sufficient extent to admit the return of the protrusion. If there be any bands in the hernial sac which entangle the protruded parts, these must be carefully divided to facilitate the reduction.

When the rupture is very large it will be useless to attempt returning the contents, as, from their long residence in the sac, there is not room in the cavity of the belly to receive them, and they cannot be got in completely, or escape immediately pressure is removed. The operator must, therefore, be contented to relieve the stricture, and leave the parts as they were.

If an umbilical rupture become strangulated during pregnancy, the operation must be performed; and has been successfully, several times.

We have to announce the death of Dr. Berard, Professor of Clinical Surgery in the Academy of Medicine, Paris.

## REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

“Nemo mortalium omnibus horis sapit.”  
INSANITY VITIATES ALL ACTS.

The subject which is intended to pass under our review is one of so great and universal importance that it should not be neglected by the legislator; the evils, enormities, and cruelties connected with it have been such that it should occupy the close attention of the philanthropist; the difficulties attending most of the inquiries respecting its psychological investigations are so great that they require the most recondite and the most patient attention of the philosopher; while so many practical discrepancies, such empirical routine, so much ignorance, has been so generally exhibited in the moral, the physical, and the therapeutical treatment, that it demands the prudent, the dispassionate, and the scientific attention of the enlightened and humane physician. Need it be told that we do not now refer to anything corporeal; but we are speaking of the mind—that intellect which God has in infinite wisdom placed in man, and in man alone.

God created man perfect: not only was man formed in the image of God, but God endowed man with mind; and it is in consequence of this mind, this intellectual power, in accordance with the decree and will of God, that man possesses dominion over every living thing that creepeth on the earth.

Civilization could not extend, man indeed would have ceased to exist, had not intelligence taught him how to avoid, how to conquer, the beasts of the field.

Philosophers have for ages disputed as to the composition of mind, and while some have endeavoured to refer it to ultimate atoms, others have considered it as *ignited air*, or a *vital essence*. We shall not, however, stop to notice the material opinions of the Stoics and Epicureans, nor the trans-migratory but yet immortal character assigned to it by the Greeks; nor would it be more useful even to refer to the *fire* of Democritus, the *water* of Hippo, or the *habitus* of Heraclitus; and it were as unsatisfactory to consider the opinions of Thales, Pythagoras, Plato, Aristotle, and Galen, as it would be to perpetuate the subtle and infidel opinions of more modern times.

These various speculations, although amusing, and perhaps even satisfactory to those who gave them birth, are useless, except inasmuch as they teach us that men of great intellectual powers have failed in discerning what mind is, of what it consists.

This we know, that the mind, as an immortal and immaterial entity, is absolutely distinct from the body; and that while this earthly tenement must dissolve, we all possess within us a soul that shall never die—it is immortal. The soul or the mind can never perish; but this intellectual principle, this mind, was given by our Creator to us, to guide us and direct us in our actions. And our first parents, possessing this reasoning faculty, received an express command from God, which command they broke, having previously debated and reasoned upon the utility and validity of such command; but this command having once been broken, conscience immediately condemned them, and they hid themselves from their Maker; then it was for the first time that man knew “good from evil.”

Man is a rational creature, he reflects and reasons: to reason is to compare the relation of facts with each other, and several faculties are employed in this process of reasoning, such as perception, attention, memory, and comparison.

By the faculty of *perception* we are furnished with ideas, through the medium of the external senses, but we cannot become cognizant even of any external impression, without some *attention*; it is true the necessary degree of attention may vary very much, but attention is essential, without it nothing is observed, nothing known, nothing can be remembered, and consequently there is no *memory*, and there thus being an absence of facts, there can be no *comparison*.

Memory is indeed the very “storehouse of knowledge,” it is “the guardian of facts,” by it we retain knowledge, and recal past occurrences.

By reason we distinguish right from wrong, truth from falsehood; it is by this faculty we compare the relation of facts with each other, by which we deduce one proposition from another; it is this which makes man a rational being; he reasons.

The judgment is generally sound where a man reasons aright; and when wishing to know why a particular opinion has been given, we demand the reasons for forming such a judgment—we say what reasons have you for such an opinion? It is reason which makes man accountable. A man without reason is irrational, and he is consequently incompetent to undertake civil duties, and is irresponsible for criminal acts.

In theory it has been thought expedient to separate and identify the various faculties; however, a just comparison cannot be formed but by exercising a sound judgment, by employing reason; and it is scarcely more justifiable to say the judgment results from a just comparison, than to infer that the comparison can be correct without exercising a sound judgment. The fact appears to be, that it is the judicious co-operation of all the faculties, and their harmonious coadaptation with each other, which enables man to reason correctly, or to form a sound judgment. We know there are numerous faculties, but the order in which they succeed each other in progress of reasoning is not so well understood.

Man can not only reason, but he is capable of reflecting upon what is within him; and by which he becomes acquainted with his own purposes. This is the highest faculty, and it should be assiduously cultivated by one who wishes to regulate his conduct by principle; it has been termed self-inspection, or *reflection*. There is a great distinction between perception and reflection, and we shall hereafter see that, when the one or the other of these faculties is at fault, each produces a different form of insanity.

Whatever is perceived is called an idea, taken in its enlarged sense; and an idea may be either *simple* or *complex*, the latter being formed by various mental operations or combinations. Those ideas which are elementary are called simple, such constituting in fact the materials from which complex ideas are formed; and it is the office of reason to discover the congruities or incongruities existing between ideas, there being either a natural correspondence or a natural repugnancy.

Reason therefore teaches us how to establish the proper relation of things with each other, and by it we perceive the coincidence or consistency, and the irrespondence or inconsistency between any of our ideas. The rapid, acute, and just survey of the relation of things with each other constitutes the sagacious man, while he is considered dull and lethargic who torpidly arrives at the same conclusion by a more slow process of induction. The man of wit and genius not only rapidly connects facts with each other which in themselves are remote, but with a vivid imagination and lively fancy he, by peculiar stratagem, places them in agreeable and striking contrasts, and yet with extraordinary ingenuity so combines them that they have an apparently coincidental similitude. A man of brilliant imagination often mixes up fancies with realities, but still he does not believe them; if he did, and if he mistook the ideas of reflection with those of sensation, he would reason from false principles, his judgment would be in error.

Imagination is purely intellectual; it is this which enables us to conceive, compose, and form new ideas—these often producing a more powerful effect upon the mind itself, than the facts from which they germinated. The power of imagination varies: some command it at will, others scarcely know that it exists. It is often one of the most dangerous gifts a man possesses, impairing his judgment, weakening his attention, and leading him through the mazy labyrinth of pleasure, frivolity, and ambition—not only often preventing him from fixing his attention on objects of science, but causing him to soar in ethereal folly, or inducing him to descend and tread the more debasing paths of vice.

Persons of lively imagination are seldom persevering, they rarely complete anything they attempt—they often mix the ludicrous with the sublime;



and nothing is more likely to induce insanity than over-indulging a vivid and prolific imagination.

The mental endowment may be divided into the intellectual and moral faculties, the latter being sometimes called the affective or appetent—so that, in addition to intellectual power, man also possesses the faculty of *appetency*, which instinctively teaches him to satisfy his desires, whether resulting from hunger, thirst, or the sexual passion; this faculty not only makes him aware of what his instinct requires, but it indicates also whatever is repugnant to the feelings, thus constituting an aversion; hence we include under the faculty of appetency, *desires* and *aversions*.

The active and moral powers are divided into the *emotions* or *passions*, such as hope, fear, joy, love, ambition, pride, vanity, sorrow, regret, rage, remorse, surprise, and wonder; and also into the *propensities* or *bodily appetites*, as hunger, thirst, the sexual passion, curiosity or the desire for knowledge, covetousness or the desire for possession, the love of power.

The emotions are found to vary considerably in the insane; thus while some are irascible, vindictive, morose, others exhibit proofs of sympathy, compassion, and love, or they may be fearful, retiring, and suspicious. Insanity is frequently characterized by an exaggerated state of one or more of the emotions or passions, it often being, as has been aptly said, "the mere aggravation of little weaknesses."

There are different degrees of mental perfection, as may be at once observed in the wide distance between the talented philosopher and the illiterate peasant. Many a day-labourer is unable to reason at all upon any other subjects than his spade, his plough, or his pipe; his sphere of observation is so contracted, his very ideas are so limited, that, if addressed upon even ordinary topics, he appears almost idiotic. It is education which chiefly constitutes the difference between man and man; and although one is born with more genius than another, yet systematic discipline with perseverance will always improve those talents with which man is endowed.

Mr. Locke upon this subject says, "The faculties of our souls are improved and made useful to us, just after the same manner as our bodies are. Would you have a man write or paint, dance or fence well, or perform any other manual operation dexterously and with ease, let him have never so much vigour and activity, suppleness and address, naturally, yet nobody expects this from him unless he has been used to it, and has employed time and pains in fashioning and forming his hand or outward parts to these motions. Just so it is in the mind: would you have a man reason well, you must use him to it betimes, exercise his mind in observing the connection of ideas, and following them in train. Nothing does this better than mathematics, which therefore I think should be taught all those who have the time and opportunity; not so much to make them mathematicians, as to make them reasonable creatures: for though we all call ourselves so because we are born to it if we please, yet we truly say nature gives us but the seeds of it; we are born to be, if we please, rational creatures, but it is use and exercise only that make us so, and we are indeed so no farther than industry and application have carried us. And, therefore, in ways of reasoning which men have not been used to, he that will observe the conclusions they take up must be satisfied they are not at all rational."

Natural endowments less frequently make men's minds what they are, than exercise, industry, and perseverance. The mind is capable of expansion. We sometimes find matured talents in very early life, but it is not every age that can produce an Alexander, a Pitt, or a Mozart; the generality of men rarely attain eminence in any pursuit without the most patient and untiring energy.

The various senses are by nature more acute and susceptible in some men than in others: thus one in early infancy not only highly appreciates, but actually composes, music; while another, without such taste, is unable even to discern the difference between the notes themselves, and in some instances cannot detect any sound at all, especially when the

pitch is high. So while some, though young, can at once design or copy nature in all her verdant vesture, others not only disregard scenery and its depictions, but cannot even perceive any difference between the colours of which such landscapes are composed.

It has been observed that the lowest amount of intelligence in this country is to be found in labourers, especially where much isolated; then in the humbler artisans when living in villages: it being noticed that those who reside in towns possess a higher degree of intellect, and of this class some, especially in the metropolis and the larger cities, have evinced most decided talents. It would not be difficult to trace the various gradations from the poorly educated mechanic to the most enlightened and polished statesman, but suffice it to say, that no man occupies a high status in any community without having devoted considerable attention and perseverance to that object in which he is pre-eminent.

The acuteness of the various senses depends to a very great extent upon the attention or education bestowed upon them, and as it is with these external senses, so it is also with the will or the mind: intellectual excellence principally depends on culture and steady discipline, at the same time some are by nature more highly favoured than others.

A great point in education is to cultivate the habit of attention. The powers of attention are weak in infancy and in old age, hence it is that so little impression is made, and consequently so little is recollected, at these periods; but as infancy verges into childhood, the interest taken in every thing rivets the attention, and this is probably why early impressions are so enduring. This opinion seems strengthened by observing the result of any extraordinary occurrence, such for instance as a man going up in a balloon; he descends in a parachute; this being imperfect, we see him rapidly approach the earth; he is killed. This is a circumstance we can never forget, because the whole attention was for the time absorbed in the event itself, and consequently the impression will be correspondingly permanent.

The mind opens by insensible degrees, it gradually expands; and this is most plainly seen in the daily progress of children; and how often is it found that what a man is unable to perceive to-day, becomes at once clearly manifest a year hence, the fact being that perseverance and application devoted to that subject have gradually led him on, until his mind becomes enlarged and expanded—and he now at once grasps that which he could not originally even perceive.

Mr. Locke says—"Defects and weakness in men's understandings, as well as other faculties, come from a want of a right use of their own minds. I am apt to think the fault is mislaid upon nature, and there is often a complaint of want of parts, when the fault lies in want of a due improvement of them. We see men frequently dexterous and sharp enough in making a bargain, who, if you reason with them about matters of religion, appear perfectly stupid."

Some men never reason for themselves, they act merely from imitation; others substitute passion for reason; while another class, although wishing to follow reason, take but a limited survey of facts, and hence reason falsely, or with a one-sided view—such persons are narrow-minded, prejudiced, and have not enlarged views or ideas. It is highly important that every person should endeavour to reason for himself, and to form his opinions upon solid principles, and not merely assume them as matters of form; the great object should be to get clear, defined, and determinate ideas, and to form a just comparison, and consequently a sound judgment; whatever is seen or heard should be accurately investigated in order to determine its truth or error; nothing is more characteristic of a weak judgment than extraordinary credulity. Some persons believe everything they are told, they never exercise thought, they never reason for themselves; such individuals are generally puerile in appearance as well as in their actions and thoughts, and they may even grow grey in boyishness.

A man of strong mind acts soundly on all emergencies; but, however highly endowed by

nature, however well regulated by art, it is impossible that any man's judgment can be equally strong on all points. There are great differences in the powers of the mind: thus one by a rapid survey at once forms a correct judgment, another by a more slow process of induction arrives at the same conclusion, while a third is perhaps unable in any way to grasp the subject at all.

A person reasoning upon any subject, with false or insufficient facts before him, must almost necessarily judge incorrectly; and where a person falsely assumes absurd facts and believes them, he characterizes one species of insanity; but many lunatics reason falsely on sound facts.

The intellectual faculties are dependent upon the external senses for a supply of facts, while the moral or appetent faculties refer to that which is within—*instinct*, and they are controlled by an inherent power, *the will*. When the intellectual faculties are deranged, the organs of the senses are chiefly affected; whereas, when the emotions and passions are disordered, the voluntary powers, being excited, are exercised with more or less energy; the intellect being at fault in the one instance, the passions and emotions in the other; and hence insanity has been divided into *intellectual* and *moral*.

*The will* is that inherent power by which man directs his thoughts and actions—by which he acts and commands. Volition is the act of willing or determining, resulting entirely from the wish or will. When a man is determined to do a thing, it is his will; it may be very indiscreet, quite opposed to common sense, but on being remonstrated with, he replies, "I will do it." A child is requested to leave the room, and, exercising *self-will*, refuses, or asks the reason; the reply of the parent being "because it is my will." Thus we find the will is presumed to constitute an innate dictating or determining power. In infancy and early life there is a great deal of what is termed *self-will*, and to control this will, and to regulate the wish or will, should be the chief point in education.

*Self-will* is directly opposed to self-government, or *self-restraint*, and it is unnecessary to add how many different shades of character, how many vices, are included between these two extremes; *self-will* in infancy renders a child wayward, in boyhood obstinate and selfish. It allows the young man to plunge into every species of revelry and sensual gratification unchecked, and, according to his peculiar propensities or temptations, leads him on from one vice to another, until it terminates in ruin, disgrace, insanity, or death.

The will is always subservient to the understanding, and hence the importance of improving and regulating this understanding by searching for and obtaining knowledge.

A man whose talents have been cultivated, and who has attained a high intellectual superiority, is far less liable to become deranged than the man of genius: the one by systematic rule and patient investigation has been daily adding strength to his mental powers; the other but too frequently allows judgment to soar in speculation, and, by constantly indulging an over-excited imagination, at length mistakes his faulty idealities for absolute facts.

The generality of the insane are not well educated, their talents not having been well and judiciously cultivated. Dr. Conolly says, "If I may trust to my own observation, I should say, that a well-educated man or woman is generally an exception to the rest, and that the majority is made up of weak and ignorant persons. The registers of the Bicêtre, for a series of years, show that even when madness affects those who belong to the educated classes, it is chiefly seen in those whose education has been imperfect or irregular, and very rarely indeed in those whose minds have been fully, equally, and systematically exercised. Priests, artists, painters, sculptors, poets, and musicians, whose professions so often appear marked in that register, are often persons of very limited or exclusive education; they have commonly given themselves up too much to imagination, and have neglected comparison, and have not habitually exercised the judgment. Even of this class it is to be remembered that it is commonly those of the lowest order of the class in point of



talent who become thus affected; whilst of naturalists, physicians, chemists, geometers, it is said, not one instance occurs in those registers." This shows how much education tends to strengthen the powers of the judgment and of reason, and to prevent insanity; while the intellect should be fortified by judiciously cultivating the talents, the moral habits should be regulated by observing good principles.

The most simple deviation from perfect sanity is usually termed eccentricity, and to determine the exact line of demarcation between this eccentricity and insanity has hitherto been found impossible. In many instances where there is great excitement or deep depression no one would for a moment hesitate in at once recognising insanity, but no general rules can be laid down where the fainter shades of false opinions have to be decided upon. Cases which exhibit such extraordinary eccentricity as even to involve the doubt respecting the individual's sanity, cannot but be regarded with apprehension and alarm; therefore eccentricity should be checked in its earliest development. A man may be eccentric in dress, in manners, in habits, or he may draw inferences at variance with the opinions of a sound judgment, being different from those of any sensible person; now such affectation as this is very apt to grow, it begins as affectation, it continues as eccentricity, it not unfrequently terminates as insanity. Such persons get into a wrong mode of thinking, and they for so long have acted from mere impulse and conceit, and their opinions have been so entirely dependent upon imagination, that at length they believe that which is false—they cannot separate truth from error. Almost all eccentric persons are excessively self-conceited; their object is often to be different from other persons; it may show itself in a thousand various forms, but such habits are very dangerous, and should never be overlooked.

There are many persons who hold very absurd opinions, but they are so far aware of their peculiarities that they always endeavour to conceal them; and while an eccentric person can avoid and may even laugh at his eccentricities when pointed out to him, a lunatic almost invariably becomes excited and enraged when his weak point is alluded to.

The memory is often defective in insanity, being sometimes specially at fault; in other instances it is preternaturally active and retentive, and such persons are often quick, acute, and subtle, and the weak point or defect in reasoning is only detected with difficulty. Instances have occurred where the paroxysms have even been enjoyed, the memory being so comprehensive and the intellect appearing to themselves to be so elevated; and when under such influence they have made poetry, acquired eloquence, and composed music; whereas the paroxysm passes over, and they are again left with only ordinary powers.

Although the memory is very often defective in several forms of insanity, yet it is not necessarily so in connate imbecility, it being here often very good as to everything trivial and childish, but the understanding, judgment, and comparison are at fault. The very look bespeaks the childish sentiments and feelings; such persons are usually shy and submissive, silly in their actions, and indiscreet in the way they spend their pocket money.

A man may be so forgetful as to ask twenty times a day the name of a son at college, or he may even when knocking at a door forget his own name, as occurred to a German statesman, who, on calling at a friend's house was asked by the servant his name; he had, however, at the moment forgotten it, and turning round to a friend who accompanied him, said, "Pray tell me who I am, for I cannot recollect." In adult life there is sometimes great inattention, and such a person may require to be powerfully aroused, but when this is effected the judgment is sound.—(See a curious case, Sir A. Crichton's "Mental Derangement," vol. i., p. 281.)

It is most singular that when consciousness and reason return, the memory often reverts to associations which had happened just prior to the attack, and which during months and years have been totally forgotten. Thus, a labourer for security, when leaving work, placed some tools in a hollow tree, went home, became maniacal, and re-

mained so several years; his reason suddenly returned, he asked for his tools, and went to the field where he had not worked for upwards of five years, and immediately found them in the spot where he had left them. In another instance, a young man saw the seed sown in a field, and as he supposed, at the end of four days, found the reapers cutting down the corn; the interval which he had lost had been passed in furious mania.

So a lady, who had for a length of time been most industriously employed in some needlework, became insane and continued so for seven years, when she suddenly recovered; although during her insanity she had never alluded to it, one of the first questions she asked was respecting the needlework. Cases have occurred where the insanity was periodical; thus a conversation has been abruptly broken off on the occurrence of the paroxysm, and resumed at a subsequent time, when the reason returned, exactly where it had been discontinued. These are very remarkable facts, and show how completely some of the powers of the memory are for a time paralysed.

In these instances the comparison as to the relative length of time was faulty; the periods of insanity were passed over as a blank, whether it consisted of one hour or of five or seven years; had recovery not taken place, these individuals would never have possessed the power of comparing the length of time. And this is well exemplified in the case of a young gentleman, who a few days before his contemplated marriage received part of the charge of a gun in his forehead; he was found deranged; from that time until he was eighty years of age, when he died. He was always talking of his bride, and from day to day contemplated with the highest pleasure and expectation the coming ceremony. Here the judgment being faulty, the power of comparison being absent, he was unable to detect the flight of time.

It may not be out of place now to mention that many lunatics, who have committed crimes or performed extraordinary acts while insane, have not, on their recovery, had the slightest recollection of such events.

It is very important to remember how one fact reveals another, and by engaging a convalescent in a conversation which reverts to scenes or circumstances antecedent to the period of his attack, considerable advance may be made in the progress of his mental cure.

Insanity is moulded according to the previous habits, thoughts, actions, passions, and feelings, there being often a greater predisposition where there is excitement, warmth, acute sensibility, or an active and vivid imagination; the type being determined by the sanguineous or melancholic temperament.

Men with dark hair and eyes are usually robust and sanguine, have strong passions, are generally furious maniacs, and have marked crises—while those with intensely black hair and eyes are of a nervous temperament and are more subject to melancholia; those with brown hair have less energetic paroxysms—while light-haired persons, with blue eyes, being of the lymphatic temperament, although subject to mania and monomania, have often agreeable and pleasing reveries, and are seldom furious, but the cases are generally more chronic and pass into dementia; while red-haired lunatics are very treacherous and dangerous, and are never to be trusted; the same also applies to white-haired maniacs, who are almost always furious and traitorous.

The character of the delusion much depends upon predisposition, physical temperament, and collateral circumstances. Thus an ambitious man fancies himself a monarch, or perhaps a general, some one of distinction—a modest and retiring person fears his reputation gone, he sees distress in every object—a pugnacious man will represent some celebrated pugilist—whilst another, who has much frequented theatres, constitutes himself the living actor; and yet again those who have been enthusiastic in religion affect to feel themselves as martyrs, or inundate their listeners with pulpit eloquence—so that a maniac frequently is only hyperbolizing his natural character; the same actions, habits, and thoughts which characterize him through life are

exaggerated. Self-esteem is often unbounded, so that every asylum affords the first senators, the chief physicians, the most distinguished generals, the greatest architects. The thirst for distinction is great, and hence there are always some who represent the Almighty, Mahomet, Satan, monarchs, emperors; they often themselves believe they hold supernatural powers.

These not only indicate their insanity in the false ideas they entertain, but in the extreme pusillanimity they exhibit; they profess to hold the power, and yet forget its privilege—they are themselves submitting while giving their commands; and often at the same moment of declaring their titles, authority, and commission, perhaps even from Heaven, they as a favour ask permission of the attendant to leave the room. The vanity of lunatics is very great: they are not only very fond of assuming high characters, but they dress up with stars, gems, jewels, orders, and badges, these being often represented by the most insignificant bits of rubbish or paper.

It is but right here to mention that Gall and his disciples believe that the assumptions of different characters depend upon various portions of the brain being affected.

(To be continued.)

## CLINICAL NOTES.

### No. IV.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio Janeiro, and Member of and late Honorary Secretary to the Parisian Medical Society, &c.

I commence in this article to redeem the promise made at page 206, vol. xiii., of the MEDICAL TIMES, by publishing information concerning the *Materia Medica Brasiliensis*; which, though perhaps all I may publish, and much more, may be known to the readers of the recent work of Martins, will yet be new to those who confine their reading to British medical literature; and I may here state that the articles of the *Vegetable Indigenous Materia Medica* named by me are those only whose virtues I have had personal opportunities of verifying, or which have been proved useful in the private or public clinique of physicians of standing and confidence.

The *Pao Pereira*, a Brazilian forest tree, flourishing chiefly in the intertropical provinces, and hitherto unclassified, has lately been studied by Dr. Freire Allemão, a professor of the Rio School of Medicine, and is found by him to constitute a new genus of the natural order *Apocynaceæ*, to which he has given the name *Geissospermum*, with the specific appellation *Vellozii* (*Geissospermum Vellozii*), in honour of the distinguished Portuguese botanist, Father Velloso, who was one of the early explorers of the natural history of Brazil. The bark of the tree has powerful antiperiodic virtues, as proved by a series of experiments to which it was submitted in the Rio General Civil Hospital, and which the private clinical observations of a number of respectable physicians have since verified. Although it is allowed to fail in cases where the salts of quinine afterwards succeed, yet such cases are few; and as it may be exhibited equally as harmlessly as quinine during existing complications of acute visceral disease—a state of things so frequent in periodic fevers—from pure economic motives, it deserves a fair trial in all public establishments for the sick. It is exhibited in decoction, internally and in baths, and its analysis has yielded an alkaloid to which the name of pereirine has been given. It would be highly desirable that a series of experiments, parallel to those of Prof. Piorry made with quinine, should be instituted to determine whether equal powers of dissipating splenic engorgement are possessed by pereirine. Should the result be, as may be expected, favourable, this tree may prove of great commercial importance to Brazil; even at present the evidence collected, though not of the positive character it would acquire were it recast by a member of the Numerical School, is such as to inspire, at least, much more confidence in this than in any other vegetable substitute for the cinchona bark yet noticed; and, though the cinchona is a superior antiperiodic to any other known vegetable,



yet it also will fail where arsenic and phosphorus afterwards effect a cure.

The family of the *Nyctagineæ* yields, in the *Bœrhavia hirsuta*, a plant of considerable deobstruent powers in chronic, hepatic, and splenic engorgements; its physiological effects are diuresis and improved appetite for food; its habitat is in the intertropical provinces, but as it has been lately transplanted with great success to the serra of the province of Sao Paulo without the tropic, I doubt not it might be easily naturalized in Southern Europe. Its properties are similar to those of the taraxacum, and I can affirm it to be of high utility in the latter periods of hepatic disease, as met with in Brazil, in which cases I often combine with it the hydrochlorate of ammonia. The plant is exhibited internally in decoction, and its use should be continued from two to four months. *Erva tostao* is the Portuguese name of the *Bœrhavia hirsuta*. Different plants in the different provinces are known by the Indian name of "timbó." The timbó, however, which has lately come into very general use in Brazil, is the *Paullinia pinnata* of the family of *Sapindææ*. The root (fresh) is contused, and the juice, mixed with linseed meal, is made into a poultice, which is an excellent discutient for glandular tumours, and others of a simple nature. In chronic disease of the internal viscera and peritoneum, this poultice applied in the region of the diseased part is a very curative agent, but the physiological explanation of its action has not yet been obtained; the sensible local effects are increased heat and considerable turgescence of the capillary vessels of the part, and sometimes small vesicles form. This medication requires to be continued for some time; the poultice may remain from four to eight hours daily. In cases of enlarged liver this is now a very favourite application; and it is probable that the timbó poultice well merits introduction into European practice, not only as a remedy in the above-mentioned cases, but more especially as likely to be extremely serviceable in engorgements of the mesenteric glands, so frequent and fatal a pathological state in Northern Europe.

A creeping plant, indigenous to the serra or high tableland of the province of Sao Paulo, called in the Guarani language *Çypó Çumó*, enjoys, not only popularly but among professional men, a high and most justly deserved reputation in all chronic skin diseases, in cachectic states unattended by decided visceral disorganization, and in all those pathological conditions supposed to depend on the presence of some specific virus in the system. The natural family to which it pertains is that of the *Passiflorææ*; it is placed in the genus *Feuillacææ*, of which it was a hitherto unknown species until described by a very distinguished German physician, Dr. Charles Engler, a resident in the city of Ytu, in the serra of this province, distant about thirty miles from Campinas. To this new species Dr. Engler has given as a trivial or specific denomination, that of *speciosa*; he is not, however, certain whether or no a more minute study of this creeper may not show it to form a new genus. The bark of the root is the part employed, and of this a decoction is made, which according to its saturation is a purgative, or only acts as a mild diaphoretic. A pint of decoction made with 3 iij. of the root bark, and taken in one day, is sufficient to produce a diaphoretic and constitutional action. In strong subjects 3 iv. may be used. The decoction is generally taken mixed with milk, and its use requires to be continued in for some time. During its use, should a torpid state of the function of defæcation exist, it is useful occasionally to give in one day a decoction of a couple of ounces, instead of three or four drachms, which acts as a purgative: this stronger dose may be given every eight or fifteen days, according to circumstances. In my opinion, the *feuillacææ speciosa* deserves to supersede almost all the other vegetable remedies of the class of alterants, and as it may be procured abundantly, might be supplied in Europe at a price to render its use but a slight burden on the eleemosynary institutions for the sick, and on similar Government establishments, in which the price of, or difficulty of obtaining, many new remedies prevents them from being tried by the medical

officers, where, from the extensive field of observation, their virtues might be most speedily and most surely tested. In ancient ulcers of the lower extremities, the use of the *çypó çumó* for three or four months will often alone be sufficient to effect a cure. (I do not here, of course, include those ulcers known as varicose, which have a cause belonging to external pathology, and yield to a surgical treatment.)

I trust that the notice now taken of these Brazilian indigenous remedies, "*exemplo ducens ad meliora*," may stimulate therapeutists in Europe to investigate their action, and so not ineffective additions may be made to the materia medica of the civilized world. Through the Rio correspondents of any mercantile house in Liverpool, Hamburg, Havre de Grâce, or New York, supplies of these or of any other indigenous remedies now begun to be appropriated by the profession in Brazil may be obtained at a trifling trouble and expense. In order to avoid confusion, the scientific as well as vulgar name should always be used, as, from the different dialects which prevailed among the Indians inhabiting the several regions of Brazil, the same plant was, in different provinces, made known to the Portuguese colonists under various names, and sometimes the same Indian name was applied to various plants. With this precaution any such commission may be executed in Rio Janeiro; and here the saying is most true, "*Si labor terret, merces invitet*."

Campinas, Province of San Paulo, Brazil,  
June, 1846.

#### OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,  
Formerly House Surgeon to St. Bartholomew's Hospital,  
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The subject of this paper is the advantage to be derived from the early use of stiles, conjointly with other measures, in cases of interruption to the natural passage for the excretions of the eye into the nose; together with a consideration of the unhealthy changes which produce the interruption.

The views and statements here propounded are entirely founded on a large number of cases that have fallen under my observation. I regret that I cannot subjoin a summary of them, to do which would indeed be to make my communication more perfect. Those who have had the treatment of out-patients at a public charity well know the difficulty of furnishing such a desideratum.

At Ophthalmic Institutions a large number of patients with a diseased condition of the lachrymal sac and nasal duct present themselves. A morbid condition of these parts is by far more frequent than surgeons imagine; patients themselves are mostly unaware of the nature of their malady, and apply to be treated for one of its symptoms, a watery eye. I shall not speak of epiphora, and of the various conditions of the eye and its appendages causing increased lachrymal secretion, but confine myself exclusively to what relates to my subject. Instead of using the term lachrymal sac and nasal duct, I shall speak of both under the name of lachrymal tube.

It cannot be doubted that idiopathic inflammation of the lachrymal tube is rarely seen. The cases of acute inflammation of the parts about the tube, together with swelling, heat, and pain of its upper end, are almost always those of an acute attack supervening on a diseased state of its lining membrane. The truth of this is proved by their common history, which is as follows:—That for an indefinite time there has been a watery eye, probably with pus or mucus mingling with it at various times, and that, without any apparent cause, an acute attack of inflammation has supervened. Or, that with the watery eye there has appeared from time to time an accumulation of fluid in the situation of the upper part of the tube, and which on pressure yielded its contents between the lids, or into the nose; on this the inflammation had supervened. Sometimes an acute attack so rapidly follows any derangement of the healthy state of the tube, that without strict inquiry the true nature of the affection will be mistaken.

During the stage of acute inflammation the puncta lachrymalia are closed, and so prevent the escape of whatever secretion may have accumulated within the tube; it is rare not to have an accumulation, and hence it is that practitioners are often mistaken, and imagine—since there is no escape of fluid through the puncta when pressure is made on a swelling in the situation of the upper part of the tube, and which evidently contains fluid—that the interior of the tube is quite free from disease, only the parts around it being implicated; the abscess being external. That accumulations of pus do at times exist in the tissues about the tube is well known, but they are seldom compared to the collections of the various products of the inflamed membrane that are pent up within it. The erysipelatous attacks commonly met with at the inner corner of the eye are, I believe, caused by obstructed tube. The very first evidence we have of an unhealthy condition of the lachrymal tube, informs us also that obstruction exists. I do not remember ever to have seen any external indication of the commencement of that unhealthy state which produces obstruction, and this is not to be wondered at. We are not aware of any deteriorated condition, till there is an obstruction to the passage for the tears. I shall defer any remarks I have to offer on the effects of the acute attacks of inflammation till a later period, at present noticing the low or chronic form, which I consider to be the origin of the disturbance. I have never had it in my power to dissect the lachrymal tube while in an abnormal state, consequently I am not in the possession of any practical knowledge on the subject, beyond that derived from the use of the knife and the probe; the character of the secretions may, it is true, give some idea of its condition. It is quite certain that very slight narrowing of the tube must produce stricture, which will be attended by an interruption to the passage of the excretions, for, although their amount is small, the means of their escape is not greater than is required to effect that end. Hence it is, that when from various causes the excretions from the conjunctiva or the lachrymal gland are augmented, a strictured tube becomes doubly apparent. I cannot suppose that an unhealthy action in the tube is confined to any portion of it; on the contrary, I think its entire surface participates in whatever degree or kind of inflammation may be present. The encasement of a part of the tube in a bony canal precludes the exhibition of those changes in it that are manifested in its upper and free end when active inflammation is present; because pus, or any other morbid secretion, escapes through the puncta when pressure is made on the free end, or because it escapes through the puncta naturally, we are not justified in concluding that the fluid comes only from that end. It is probable enough that that part of it not circumscribed by bone, and which, owing to its situation, is the best supplied with blood, and, in addition, is the greatest in bulk, will secrete the most. Except where permanent stricture exists, the lower end of the tube must, I imagine, pour some of its secretions into the nose, for if a portion of the tears passes there, why not the secretions?

Every case of obstructed lachrymal tube that has come under my ear has been in scrofulous individuals. They have, in most instances, exhibited the prominent features of struma, or the remains of its ravages. About the age of puberty I have seen the greatest number of true fistulæ lachrymales; and this is easily accounted for. At all times of life a scrofulous person is liable to scrofulous inflammation of the lachrymal tube, although the liability diminishes with increasing age.

The obstruction of the tube existing in a slight degree, and producing little inconvenience, and apparently continuing in the same state, or increasing only a little for years, is one cause of its true nature being overlooked. The inflamed state of the mucous lining of the palpebræ, the consequent discharge, the often vitiated function of the meibomian glands—all occasional secondary affections of obstruction—are constantly mistaken for a primary affection, and treated accordingly. The diseased state of conjunctiva and meibomian glands is not unfrequently an independent coincident



affection. I doubt whether an obstructed tube is ever a secondary affection. I have never been able to detect the presence of any vitiated fluid from the conjunctiva in the tube. I have never known an unhealthy condition of the puncta cause obstruction to the secretions. Acute attacks of inflammation develop the severity of the affection; but for these, generally speaking, the patient does not seek advice, except when the lining membrane of the palpebræ is secondarily involved. Occasionally the tube will pass into a state of permanent stricture, without even a single accession of inflammation; but frequently a slight obstruction is converted into a permanent stricture by an acute attack, and then fistula and sometimes sloughing ensue. When acute symptoms are present, contrary to what we should expect, cases are occasionally seen that do not appear to be the worse for acute attacks; nay, even more than this, a few have appeared to get well after the most active symptoms attended with abscess.

I have met with every stage of constriction of the tube, from the slightest thickening of the lining membrane to permanent obstruction by a tough substance which it required considerable pressure to penetrate. In one instance only have I met with bony deposit, and that was in a young man who was suffering from the tertiary form of syphilis, and had bony deposits in several parts of his body. There was a small deposit of bone on the orbital margin of the superior maxillary bone, and which projected into the bony canal and completely obliterated it. The narrowest part of the strictured tube is mostly the centre; this is what we should expect. I have not met with a stricture just at the nasal end and confined to that part, while the root of the tube was natural, although such cases have been mentioned to me. It is quite certain that the valvular opening of the tube into the nose is often swollen, participating in diseased action of the lining membrane of that cavity; and that scrofulous inflammation of the mucous membrane of the nose may extend to the tube is highly probable.

Now, with respect to treatment. I have not had any experience in the use of Anel's probes, nor should I ever think of adopting his practice, since I am sure that ill instead of good would result. I should scarcely have alluded to this dangerous little instrument were I not aware that it is often used. The highest ophthalmic authorities condemn it. One of our own writers, Mr. Lawrence, says—"The extremities of these probes are, however, so small that they easily become entangled in the irregularities of the membrane, so that we cannot readily judge whether the instrument is stopped by that cause or by an obstruction in the duct. By pushing it, in the former case, we wound the membrane, and drive the instrument between it and the bone. Even if we conduct it safely to the obstruction, in which object failure may often be expected from the necessary change in the direction of an instrument going first through the lachrymal canal, then through the sac and duct, it is badly calculated in size and strength for forcing the obstructed part. The small opening effected by it is inadequate to the transmission of the tears, and will soon close again. I therefore consider the employment of Anel's probes in this way more likely to do harm than good. He himself acknowledges that the method is applicable to mild cases only." The plan adopted originally, I believe by La Forest, of introducing a probe into the nasal end of the tube, is still resorted to, but proves very inefficient, as I have had frequent opportunities of knowing. Of the tube proposed and used by Mr. Wathen I have no personal knowledge; the mischief it produces has, I believe, caused its almost total abandonment. Petit's method, improved on by Mr. Ware—that of using a nail-headed stile—is the one I now so strongly advocate. According to my former practice, without the stile, the result of obstructed cases was the reverse of being satisfactory, notwithstanding I adopted the most recognised plans in the most approved manner. Often when it was supposed that a cure was effected, a return of the patient, or an after knowledge of him, assured me that the treatment was only palliative. Advice is ordinarily sought during the prevalence of an inflammatory paroxysm directly in the tube itself, or remotely

through inflammatory affections of other parts of the visual apparatus; and if the chronic affection has been slight, the subsidence of the active symptoms and a return to the former state, or nearly so, will induce a belief that the obstruction is removed and the malady cured; again, a reduction of the more urgent symptoms of the chronic stage might induce a similar belief. In the early stages of obstruction, if we depend only on the evidence of external inflammation for a knowledge of what is working within, we shall often be misled. Not unfrequently, with extensive stricture, the integuments of the inner canthus do not differ from those of the opposite eye. There is occasionally swelling, but usually of a very slight nature. Considerable pressure on the tube is not often painful. In seeking indications for treatment, the general aspect of the patient, and the condition of the vascular system, do not encourage an antiphlogistic plan. To cure our patient a surgical operation must be resorted to, a stile must be used, and then measures useless alone will, with this combination, be very effectual. It is difficult to conceive why so good a remedy, so long known, should be so much neglected, as I know it really is; much suffering and misery would be averted were its application understood. To obtain permanent relief from the use of the stile we must resort to it early in the malady; to postpone it until, from continued morbid action, there is adventitious deposit, and the tube is changed in its intimate structure, is greatly to restrict its advantageous application. If, on the very onset of chronic inflammation of the tube, appropriate treatment were applied, I doubt not that stiles could almost be dispensed with. With few exceptions, when I have had to deal with an obstructed tube, the obstruction has been of long standing, and more commonly of years than months,—that is, from the commencement of the first symptoms. Whenever I suspect that there is obstruction I make pressure at the inner canthus; and if there escapes through the puncta pus, or muco-pus, or even a large quantity of mucus, I recommend the use of the stile. The description of stile I find the most useful is that of the one-thirteenth of an inch thick and an inch and a quarter long, the head flat and plain and a little bent on its body. In introducing it I make a hole in the skin, just sufficiently large to admit of its easy passage. The knife I employ is a short straight-bladed bistoury, the one-eighth of an inch in its broadest part, and dull to within an inch of its point. I do not imagine it necessary to go into the details of the operation. The same reasons that prevented me from treating anatomically of the tube and parts connected with it, actuate me here also. If there is sufficient obstruction to resist the passage of a probe of the thickness of the stile, I overcome it with the bistoury. There is often much resistance to encounter. No permanently bad effect has ever resulted from my use of the stile: a few times I have withdrawn it, as it seemed to occasion irritation, but I have generally reintroduced it after a short time. I never fail to find the tube obstructed; and, although this is mostly evident in some one or more parts, the entire calibre is always less than in health. In obstructions of long standing without being permanent, I have observed the tube to be ulcerated, the probe having come in contact with the bony parietes of the canal. The amount of stricture is often more, rarely less, than the symptoms of obstruction would seem to indicate. The result of the early use of the stile has been in my hands highly satisfactory and encouraging; and if it be employed before the tube has deviated much from a healthy state, and before acute attacks have made their ravages, I am sure that in almost every instance it will effect a permanent cure, by which I mean that its use can be dispensed with sooner or later. This cannot be said of any other mode of treatment that is ever used. It should be understood, the less the obstruction, although acute attacks may not have supervened, the more certain and the speedier the cure. If in cases of permanent obstruction, complicated with fistula, the use of the stile sometimes produces a cure, is it not reasonable to expect that its early employment will be highly beneficial? This is proved to be so by actual practice.

It is my intention to publish reports of cases that I have treated with the stile, together with comments on them; and then I shall be able to treat in detail many points that can only be mentioned at present in a general manner. The stile must be worn till long after there has ceased to appear any morbid sensation. The tears usually pass in the right way a few days after its introduction. The most favourable cases for its use are those complicated with affections of the meibomian glands and conjunctiva, whether the affections are secondary or not. The stile is occasionally withdrawn to clean it, if it be too long there often accumulate on its nasal end masses of nasal secretion which render the withdrawal difficult. I always employ astringent lotions, and apply them to the surface of the conjunctiva. I do not think that advantage is gained by injecting the tube through the stile hole; when the living membrane of the lids and the meibomian glands are affected the usual remedies are applied to them. Acute attacks of inflammation are, of course, treated with active measures. The use of the stile is directed only to an effect, that of an obstruction; and if our treatment ends there, little permanent good will be effected: there must be relapses. The cause of the obstruction must be treated; attention directed to the scrofulous habit; the state of the health improved by appropriate remedies; and I may here state that I have extensively employed the sulphate of iron in solution. Only once has an instance fallen under my notice of the stile hole not healing rapidly. The exception was that of a gentleman who had had a stile passed, and on his coming to me I deemed it necessary to withdraw it, and introduce it at another spot. The opening, however, would not close, the cause being a false opening into the sore with which it communicated. All means used for its closure were ineffectual; I left nothing untried except transplanting a piece of skin: losing sight of the patient prevented this. I heard that he afterwards consulted a surgeon of great repute in this town on account of the fistula, but he did not obtain relief. If we consult systematic writers on ophthalmic surgery we shall find that they do not testify much to the advantage of therapeutic treatment in chronic affection of the sac, but yet they do not recommend the early use of the stile; and when it is alluded to as a part of a system of treatment, the results are so vaguely expressed, that much is not to be gathered from them. Mr. Samuel Cooper, who does not advocate the use of the stile except in cases of permanent stricture, still throws, according to my idea, much weight in favour of its early use. He says in his "Surgical Dictionary," p. 879, "The late Mr. Ramsden, of St. Bartholomew's, with whom I lived as articled student, always followed the common plan of passing a probe down the nasal duct, and letting the patient keep a piece of bougie, or a stile, in the part for two or three months afterwards; and I scarcely recollect an instance in which he failed to accomplish a cure, though I have no doubt that the same benefit might sometimes have been obtained without any operation at all." I shall end with a quotation in the same dictionary: I regret that I cannot refer to the original, a tract by Mr. Ware, which shows that the author highly approved of the use of the stile, before the sphere of its usefulness is too much restricted. Page 887, he writes, if after "about a week or ten days there be not some perceptible advance towards a cure, or if, from the long continuance of the obstruction, there be reason to fear that it is too firmly fixed to yield to this mode of treatment (alluding to injecting the tube with various fluids, abstracting blood, introducing Anel's probe, using sternutatories), I do not hesitate to propose the operation which is now to be described. The only persons with respect to whom I entertain any doubts as to the propriety of this opinion, are infants; in such subjects I always think it advisable to postpone the operation, unless the symptoms be particularly urgent, till they are eight or nine years old." Then follows a description of the operation.

13, Bernard-street, Russell-square,  
Oct. 15.



## ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARK-WICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

## ON THE FUNCTIONS OF THE PANCREAS, AND ON ITS INFLUENCE ON THE DIGESTION OF FECULENT MATTERS.\*

In the memoir on the digestion of feculent and saccharine matters, we had the honour of reading to the Academy on the 20th of January, 1845, we proved that it is in the small intestines of the feculivorous animals that the principal modifications which render raw fecula soluble in water take place; and among the conditions which favour these modifications we mentioned the presence of a secreted principle which acts in a similar manner to *diastase*. It remained for us to find out the organ or organs which secrete this principle.

## SALIVA.

This is undoubtedly the liquid that ought naturally to be the first considered. "In fact we know," says Burdach, tom. ix., p. 265, "that the saliva favours the fermentation of amylaceous substances. It is said to be employed in China in the manufacture of bread, and in India in the preparation of alcoholic drinks. *Leuchs discovered* (Kastner, "Archiv. für die Gesammte Naturkunde," tom. xxii., p. 106) *that starch made into a paste by boiling, and heated with fresh saliva, becomes liquid in a few hours, and is converted into sugar.*" Burdach adds, further on, at page 268, when discussing the physiological properties of saliva, "The most evident chemical fact is the power possessed by saliva of transforming starch into sugar. It furnishes us indications by which we are able to appreciate its mode of acting." Leuchs ascertained that neither albumen nor ptyaline produces this effect on starch. According to Sebastian, starch, when digested with saliva, loses its property of being turned blue by iodine, in the same way as when it is treated by an alkali. In the latter case, however, this property is restored by the addition of an acid, but in the former it is not. Schwann likewise pointed out the part performed by the saliva in digestion, when he said that pepsin does not exercise its digesting reaction on all kinds of food, it being confined to albumen and fibrin; casein, gelatin, and gluten being digested by the free acid of the gastric juice, and the starch of the saliva which becomes mixed with this juice.

This property of saliva to dissolve fecula was made known some years ago to the Société de Pharmacie, by M. Desmarest. And one of us, on the 11th of May, 1844, obtained *pure diastase* from the stomach of a man labouring under glucosuria, by a process exactly calculated from that recommended by M. Payen for extracting diastase from germinated barley. The memoir which had been so long announced was presented on the 7th of April, 1845; but M. Bouchardat had alluded to the existence of diastase in the stomachs of these patients as far back as the year 1838.

M. Mialhe also procured diastase from saliva by means of M. Payen's process. His memoir was presented to the Academy on the 31st of March, 1845.

M. Mialhe's researches, and the numerous experiments we have made, and which it is unnecessary to mention in this place, confirm Leuchs's discovery. Among other things we verified that *the saliva collected in the buccal cavity* dissolves starch jelly, and converts it into dextrine and glucose. It remains to be proved whether all the so-called salivary glands secrete a fluid containing diastase. There is one important point on which we do not agree with M. Mialhe. "I have endeavoured to ascertain what chemical phenomena may be the cause of the transformation of starch

into dextrine and glucose; and I am convinced, from a vast number of experiments, that it is *effected solely by the saliva.*" ("Comptes Rendus," tom. xx., p. 957.) From this it will be seen that M. Mialhe goes farther than Leuchs. This distinguished person proved that, during digestion, the saliva converted starch into glucose. M. Mialhe pretends that this transformation is effected *solely* by the saliva. It is one of two things: either that this assertion is but an idea thrown out, which experience will not confirm; or that we were grossly deceived in our memoir on the digestion of feculent matters, when we related the numerous experiments we had performed on different animals living on such substances, proving that the dissolution of them was effected principally in the small intestines. It will be shown in the course of this essay to which side the error belongs. We have studied the digestion of feculent substances, more particularly in granivorous birds; because in them, as is well known, the glandular apparatus which secretes the saliva is but little developed; and, moreover, these glands differ considerably in their structure from the salivary glands of mammiferous animals: they seem to be intermediate between the muciparous and the true salivary glands; they secrete but a small quantity of a viscid, consistent fluid having but an equivocal and limited solvent power.

For the sake of order we will continue to describe the action of the various fluids that are secreted in the intestinal canal on feculent matters.

We examined the action of the liquid contained in the enlargements of the oesophagus of a goose, or fecula converted into paste, and found that it had no solvent action. The same experiment was repeated with the liquid that was spread over the crops of two pigeons, and scarcely any solution was perceptible.

## GASTRIC JUICE.

Numerous experiments, proving that the fluid secreted by the glands of the stomach in health has no solvent action on feculent matters, have been related by one of us in his memoir on diabetes. These facts are in accordance with the experiments published in M. Blondlot's work, consequently the origin of the substance which acts on fecula, like diastase, must be sought for elsewhere.

The *membranes* separated from the different parts of the digestive canal, exert no solvent action on feculent matters after they have been perfectly freed from the liquid in which they are placed.

**BILE.**—We have tried the action of the bile of different animals which live on feculent grain, on fecula and starch jelly, and likewise that of each of the various substances of which it is composed, and we have not observed in one single instance any indication of a solvent action.

## PANCREAS AND PANCREATIC FLUID.

Feculent matters are dissolved chiefly in the small intestines; this we have verified by numerous experiments on living animals, which we have quoted in our memoir of the 20th of January last. [We have proved by exclusion, that the solvent does not exist in the principal fluids that are poured into the digestive apparatus. The action of the pancreatic fluid remains only to be studied. Nothing is known respecting the part it performs in digestion; and authors do not agree as to its nature. It is a subject, therefore, well worthy of further investigation.

## ON THE PART PERFORMED BY THE PANCREATIC JUICE IN DIGESTION, AND ON ITS NATURE.

According to Haller ("Elem. Physiol.," tom. iv., page 451), the pancreatic juice serves to dilute the bile, and to modify its acrimony, particularly of that contained in the gall bladder, in order that it may not irritate the intestines too much, and occasion a too rapid progression of the chyme. Werner ("Scherer's Journal," tom. vi., page 33), fancying he had observed that bile diluted with water produced a more copious deposit in the chyme, thought it probable that the pancreatic juice might serve to dilute it. Eberle adopts this opinion. He adds, however, that the acetic acid of this juice combines with the soda of the bile,

and is, besides, useful to dilute the fatty matter and reduce it to the form of an emulsion. Krimer attributes to the pancreatic juice the power of neutralizing, assimilating, diluting, and dissolving. Lastly, Tiedemann and Gmelin are of opinion that it contributes, by virtue of the albumen and casein—substances rich in nitrogen—contained in it, towards the assimilation of the different kinds of food. M. Magendie displays much more sound reasoning in the following remarks ("Physiologie," tom. 11, page 117):—

"The kind of alteration which the food undergoes in the small intestines is unknown. It is evident that it is owing to the action of the bile, the pancreatic juice, and the fluid secreted by the mucous membrane, on the chyme; but we are perfectly ignorant of the play of affinities in this truly chemical operation."

We believe that the experiments we are about to make known will clearly point out the most important part played by the pancreatic fluid.

Before detailing them, however, it may be as well to show that the same uncertainty also exists even relative to the nature of the pancreatic juice, and of the gland by which it is secreted. Thus, according to Gmelin and Tiedemann, the pancreatic fluid of the sheep and dog, that was collected at the commencement, was slightly acid, while that obtained after the animal had suffered some time was alkaline.

Mayer mentions having also found it alkaline, in a vesicular reservoir, in which it had accumulated in a tolerably large quantity, in a cat; while A. Schultz says it is acid in the cat, the horse, and the dog, and that he only found it neutral in one instance in the latter.

Leuret and Lassaigne likewise found it to be alkaline in the horse. These last-named observers state, that on evaporation the pancreatic juice leaves but 0.9 per cent. of dry residue, which, according to them, contains a substance soluble in alcohol, another soluble in water, traces of albumen, mucus, carbonate of soda, chloride of sodium, chloride of potassium, and of phosphate of lime; and, adopting an analogy which Gabin had before foreseen, they conclude that the pancreatic juice of the horse has a very great resemblance to the saliva of the same animal.

On the other hand, according to Gmelin and Tiedemann, the dry residue left by the pancreatic juice amounts to 8.7 per cent. in the dog, and to from 3.7 to 5.2 per cent. in the sheep. That of the dog contains osmazome, a matter coloured red by chlorine; a substance analogous to casein, and associated, in all probability, with salivary matter; albumen, which amounts to two-fifths; acetate of soda; chloride of sodium; very little phosphate and sulphate of soda (the whole mixed with a little potassium); and, lastly, carbonate and phosphate of lime. "Consequently," say they, "the pancreatic fluid is essentially different from saliva."

The following are the results of our experiments and observations:—

We took a strong well-fed fowl, killed it by dividing the spinal marrow, and then immediately afterwards opened and examined it.

The pancreas, as is well known, is very large in these animals, and pours its secretion into the small intestines through several channels. We carefully dissected the principal one, which empties itself into the duodenum, very near the hepatic duct. The pancreatic canal was then divided, and gentle pressure made so as to cause the pancreatic fluid to flow into it; but it was with great difficulty that we were able, even by the most careful manipulation, to obtain a few drops. They were, nevertheless, sufficient for us to ascertain the following characters:—

The pancreatic juice of the fowl is transparent and viscid, and restores the blue colour of reddened litmus paper. When mixed, even in small proportion, with starch jelly, it liquefies it and transforms it into dextrine and glucose. If it is diluted with a drop of water, and mixed with a few grains of fecula, and the temperature then gradually raised, care being taken not to reach

\* Memoir presented to the Academy of Sciences, Paris, by MM. Bouchardat and Sandras.



70 deg., the fecula becomes disintegrated, and the action is such that the mixture does not assume the consistence of paste. If pure alcohol be poured on the pancreatic juice, a deposit is formed, which, on being separated from the supernatant liquid and again dissolved in water, acts on fecula in the same manner as the pancreatic juice itself. This is diastase, the existence of which in the small intestines of granivorous birds we have already referred to.

In order to confirm these results we experimented on a stronger animal.

A very strong adult goose, that was not, however, loaded with fat, was largely fed with barley. Three hours afterwards it was killed by dividing the medulla oblongata; its double pancreas was immediately dissected, and its principal duct exposed and divided as near to its duodenal extremity as possible; gentle pressure was then made over the whole gland, but notwithstanding these precautions, only a few drops of the pancreatic juice could be obtained. Its reaction is the same as that of the fowl; it restores the blue colour of reddened litmus paper, but its alkaline properties are very weak.

It is viscid and transparent; mixed with starch jelly it liquefies it with great rapidity; if a few grains of fecula be added to it, and, after it has been diluted with a few drops of water, its temperature be raised to within 70 deg., they will become converted into dextrine and glucose. By prolonging the action it is not necessary to reach this temperature: we need not go beyond 45 deg.

When the pancreatic juice is diluted with a few drops of water, and the liquid thus obtained thrown upon a small filter, a limpid fluid passes through, which if heated to 100 deg. becomes somewhat troubled, and also lets fall a slight precipitate on the addition of nitric acid. On one portion of this fluid we poured anhydrous alcohol, a deposit was formed, which when collected and dissolved in water produced effects perfectly similar to diastase. We could not, however, determine the energy of this substance, as compared to that of diastase from barley, owing to our having too small a quantity at our disposal.

It is, like the diastase of barley, an azotized substance; at a temperature of 100 deg. the strong acids, and other matters which we have alluded to in a memoir on fermentation, completely destroy its property. It is in granivorous birds the principal agent in the solution of feculent matters.

19, Langham-place.

#### CASE OF PARASITES IN THE SKIN.

By J. W. MOSES, M.D., M.R.C.S.

Towards the latter end of July, a lady asked my advice respecting an eruption which had appeared about her neck, breasts, and folds of the axillæ, and which itched intolerably. Upon examination in these situations I perceived clusters of large papulæ, each spot slightly acuminate and red, and where they had just been scratched not unlike urticaria. She informed me that she felt perfect health, and thought they must be "heat spots," or perhaps might depend upon diet and disorder of the stomach. Accordingly a few gentle laxatives were prescribed, and she was ordered to bathe the parts affected frequently with tepid water. This plan was persevered in for ten days or a fortnight without any benefit being derived, excepting slight alleviation of the itching during the use of the warm water.

In the meantime the disease had spread considerably, and the abdomen and epigastric region were studded with it. She now told me her infant, about sixteen months old, had broken out about his neck and under his arms, and particularly behind his ears and on his head; the spots in these latter situations were vesicular, and discharging a thin and nearly transparent fluid, which dried and formed scabs almost precisely similar to eczema. Her two other boys, from four to six years of age, were now likewise covered with the eruption in the same localities; and the head of one had large patches of what appeared to

be eczema: on examining this boy's head minutely with a very moderate microscope, I observed the circumference of the scabs to be apparently dusted with red precipitate; but as no reason could be given for such accumulation, I proceeded to detach with the point of a pin and with considerable difficulty some of this red matter, and transferred it to a sheet of white paper, when I soon found it consisted of masses of living creatures, which when disentangled from one another began to walk off at a considerable pace. Each mite was scarcely visible to the naked eye; a pin's point completely obliterated one on the paper; they were of a reddish scarlet colour, and when crushed stained the paper of the same hue; they were ovoid in form, had six legs, and answered pretty accurately to the description given in Cuvier's work of the *Acarus autumnalis*. The lady had a female friend who came to visit her, at the time that she was suffering from these pests, and who was almost immediately similarly affected; they both assured me the itching was beyond all description violent. As I now thought I had found out the true cause of the malady, I minutely examined the children, and upon the summit of every papula (for the eruption now exhibited three distinct stages—the papular, vesicular, and the dried discharge forming scabs) was firmly inserted an acarus, which I could scarcely separate without destroying; but by getting the point of a needle slightly under the skin I soon succeeded in detaching hundreds, I may say without exaggeration, from my patients, to their no small relief: for the children were disturbed at night from the irritation, and, in fact, scarcely slept at all, which had a bad effect on their general health, making them cross and irritable during the day; the sores behind the ears, which were rapidly spreading, were completely surrounded with these minute insects. I tried the effect of several lotions, hoping to destroy them; but nothing succeeded so well as hartshorn and oil, which I may call a specific, as it killed them immediately, and changed their colour to a reddish brown; this liniment and repeated warm baths, with an abundance of soap, and detaching as many of the parasites as were visible, and avoiding their haunts, which I found to be the blighted leaves of the apple-tree, were the means in the course of a fortnight of ridding my patients of this disagreeable affection.

These acari had the power of jumping to a considerable distance, and not unfrequently when examining them they took a sudden departure from the field of the microscope. As they have been described by naturalists as oviparous, I think it very probable that their eggs are inserted under the cuticle, and that an irritating fluid accompanies the deposit, which produces the itching and local inflammatory action, which is of course increased by scratching, and may be the means of forming a nidus for these minute creatures to germinate in, by disintegrating the tissues and causing an abnormal local action, not unlike the effect produced in the vegetable kingdom by the cynips quercus folii and the aphides.

St. Asaph, Oct. 12.

#### ALLEGED PAINLESS OPERATIONS BY MESMERISM.

By JAMES ESDAILE, M.D., Army Surgeon.

(Continued from page 33, vol. xv.)

*Removal of a very large Tumour.*—Sept. 1. Teg Ali Khan, a tall, strong-looking man; has a hypertrophied scroti, caused by repeated operations for hydrocele by native doctors, who only withdraw the water as often as it accumulates, without attempting the radical cure. The tumour is perfectly round, and as big as a man's head. He was mesmerised in two hours, on the first trial, and, in the presence of Drs. Ross and Sissmore, I dissected out all the parts; this was very tedious, from the testes having contracted adhesions all round them; and it was about half an hour before the organs

were covered up again by stitching flaps over them. Not a quiver of the flesh was visible all this time, and, at the end, his body was as stiff as a log, from head to foot, and his separated legs could be with difficulty put together again. He awoke in half an hour after the operation, and felt no pain.—Sept. 4. The stitches were taken out to-day; the wound has healed throughout, and he has had no pain whatever since the operation;—so much for the absence of the usual irritative shock to the system. We can renew the trance at pleasure, in order to render people insensible to repeated operations.

*Application of a red-hot plaster iron, paring, and tearing through adhesions.*—Sept. 18. Morally Dass, a peasant, aged fifty, has an unhealthy cartilaginous sore, half an inch high above the skin, and extending for six inches along the outer hamstring of the left leg, which it has contracted to nearly a right angle with the thigh, for a year past. He was entranced to-day for the first time, and I deeply cauterised the whole sore with a red-hot plaster iron, without awaking him.—Sept. 19. The excrescence is so hard and thick that it must be dissected off the hamstring: he was again entranced, and the diseased part was pared down to a level with the surrounding skin without his feeling it.—Sept. 20. When he was in the trance to-day I straightened the leg completely, and bound it up in splints; he awoke not, and when he did, had no pain; although it took all my strength and weight to break down the adhesions, which I felt and heard cracking under my hands. The Rev. Mr. Bradbury saw the first operation. The Rev. Mr. Fisher, and Mr. Graves, the second, and Mr. Blyth the third. In the treatment of chronic diseases suited for mesmerism, coma is not required; if it occurs, it is probably because nature needs it; but we ought to be satisfied with the improvement of the patient, though it is unaccompanied with any striking phenomena. The system is not less effectually recruited because it is done silently—just as the best digestion is least felt. For refreshing the nervous system, and inducing natural sleep, mesmerising, *à longs courants*, as the French call it, will be found sufficient. These are steady, continuous tractions, with the points of the spread fingers, from head to foot; the head may be occasionally breathed upon, and the hands allowed to rest for a few minutes on the pit of the stomach. An hour of this, on going to bed, will often soothe restlessness, bring back natural sleep, and invigorate the nervous system.

*Removal of a fungus as large as a cauliflower.*—Aug. 23. Napaul Bagby, a husbandman, has a singular fungoid mass in the right groin; it is the size of a small cauliflower, and like it in appearance, the surface being whitish from sloughing. It spreads from a peduncle in the abdominal ring, and bleeds much when handled. His father says that, at his birth, there was only one testis in the scrotum, and no trace of the other was seen till he was six months old, when a swelling appeared in the groin. This gradually increased till his twelfth year, but was not painful or inconvenient. About this time he was attacked with fever, attended with increased sensibility and increase of size in the tumour, and the paroxysms came on twice a month, up to June last, when he applied to a barber-surgeon, who used means to ripen the swelling. In the course of a few days it was punctured, and blood only followed. The opening was plugged as well as possible with a candle covered with cloth smeared with some ointment, but in a few days this came out, and the following day a fungus shot out of the wound, and daily increased to its present size. It is now a very foul mass, its surface mortified, and the crevices filled with maggots.—Aug. 26. He was mesmerised after two hours' trial, and the mass removed without his feeling it.—Aug. 31. Discharged at his own request—wound looking well.

*Removal of excrescences.*—Sept. 1. Raimgopal, a young Hindoo, has got a high syphilitic sore, about the size of half a lemon, on each side of his nates. He was entranced on the first trial; and in the presence of Dr. Ross and Dr. Sissmore, I turned him round like a log, and cut off both the excrescences level with the skin, then turned him



back again, and left him sleeping. It is needless to say he did not feel it.

*Removal of an enlargement as big as a child's head.*—Oct. 8. Nazir, a peasant, aged sixty, has suffered from enlarged and scirrhus testis for four years; the parts are as large as a child's head, and extirpation is necessary. He was entranced after two hours to-day.—Oct. 10. He was mesmerised the second time, to-day, in the presence of Mr. Sutherland, Dr. Owen, the Reverend Mr. Bradbury, Major Riddell, Mr. Higgen, Mr. Muller, Mr. Graves, Messrs. Savigny, Mr. Calder, and Mr. Bartlett. I removed the parts without his showing any sign of sensibility till the last artery was being tied; he then woke up, but went immediately to sleep again for half an hour, and on waking, said that he was only conscious of a little pain when he awoke for a moment and found me to be tying something. He was cheerful and talkative, and showed no signs of suffering or exhaustion in his countenance or manner, and said the pain in the wound was very trifling.

*Removal of an enlargement as big as a child's head.*—Nov. 26. Mahes Banergie, a Brahmin, aged forty, has got an enlarged testis, the size of a child's head; it is red, glistening, and very painful, and there is a scrotal hernia above it. He was entranced on the first trial, and I returned the gut into the abdomen, handling the inflamed part very rudely, without his showing the least sensibility. I then, in the presence of Captain D. L. Richardson, dissected out the diseased organ. The operation was tedious, as I had to carefully separate the mass from the hernial sac. He moved, as in an uneasy dream, but did not awake till we were tying the arteries, which were very numerous; he then said that he had felt nothing till that moment. The muscular movements, sometimes seen, looked more like the contractions induced by cutting a recently-dead animal, than the common contortions from pain; and I believe may be avoided by patience, as every trance seems to deepen the insensibility. I need not point out to the surgeon the advantage he would derive from the mesmeric trance, in reducing strangulated hernia, and in spasmodic strictures of the urethra.

*Paring off the edges of an ulcer.*—Nov. 30. Mahes, a peasant, aged thirty-two, has got a deep ulcer of a year's standing, at the root of the penis, that penetrates under the pubes; the edges are callous, and prevent it from healing. He was subdued in two hours on the first day, and, in the presence of Dr. Tritton and a party of officers of the 71st Regiment N. I., I pared off the margins of the sore without his awaking. He awoke a few minutes after, said he had been asleep and dreamt that some one had pulled him off the roof of a house, and declared that he felt no pain whatever at the moment of speaking. I thereupon proposed that he should allow me to cut him a very little, as it would facilitate the healing of the sore, but he would not hear of it. Dr. Tritton and the rest also joined their persuasions; but he implored us for the love of God to let him alone—he would rather die than be cut, that the proposal had already killed him, &c. He was desired to sit up, and his cloth removed; on seeing the altered state of things he was greatly alarmed and puzzled, and, on being shown the pieces of flesh, said they had certainly belonged to him before he went to sleep, and how I got hold of them he had no idea. As I found myself in the company of candid and dispassionate observers, I showed them mesmerism in all its physical symptoms, whether directly or indirectly produced, and Dr. Tritton very kindly said at parting that he was quite convinced of the reality of the symptoms from first to last, whether produced by something or nothing, and that he now quite understood the "mesmeric disease," and said I was at liberty to say so if I pleased.

*Removal of a nail, and operation for hydrocele.*—Dec. 26. Goluck Seit, a prisoner, has got a hydrocele on each side. A young Hindoo subdued him to-day in ten minutes, on the first trial. When about to operate, I saw that he possessed a consecrated nail, on one of his little fingers; and, knowing the value attached to this, I resolved to get possession of it, if possible, as a moral test of his being insensible, for he would as soon have cut a

cow's throat and eaten a beef-steak as allowed me to cut off his nail while in possession of his senses. It is a common practice with the Hindoos to vow their hair, beards, or nails to Shiva, the Destroyer, in the hope of averting his anger; and this man had consecrated his little finger-nail to Shiva Forakissore—Forakissore, in this district, being a famous shrine of the god. I transferred the sacred excrescence to my pocket, without any remonstrance being made, and then performed the less-formidable operation of withdrawing the water, and throwing in the injection, of which he knew nothing on awakening two hours after. His only distress was the loss of his nail, and he spent hours in hunting for it, supposing that it had been broken off by accident.—Dec. 29. I entranced Goluck Seit to-day in five minutes; and in the presence of Mr. Cahusac and Mr. Mullins, operated on the other hydrocele, to which he was as indifferent as on the first occasion. But before putting him to sleep, I showed the gentlemen how painful was the side operated on three days ago; and yet, in five minutes after, he allowed me to squeeze his testis to any extent, without exhibiting a vestige of uneasiness. I awoke him in half an hour, that Mr. Mullins might question him; and he said that he saw the water was gone, but how it had escaped he had no idea.

*Removal of agonizing pains, &c. &c.*—March 7. D. Canvan, a private in her Majesty's 50th Regiment: saw him for the first time to-day. He complains of great tenderness on pressure all over the chest, and especially under the short ribs on the right side; his chest feels contracted, and he cannot take a deep respiration. The knee-joint of the same side is contracted, and the ankle and toes are stiff and immovable; there is great tenderness in the calf of the leg, and he cannot put his foot to the ground. He says, that he found himself in this state on recovering from a delirious fever, three weeks ago, and in the list I received, his case is put down as "delirium tremens." Believing him to be suffering from a neuralgic affection of the muscles of respiration and of the leg, I began to mesmerise him, without a word of explanation, or leading him to expect anything. In a short time he breathed more freely, and in a quarter of an hour could take a deep breath, and permitted me to poke his sides and chest without its annoying him. The process was extended to the leg, and, without my touching it, the knee gradually relaxed, the ankle and toes became flexible, and at the end of half an hour the leg was perfectly straight, and he moved it freely in all directions without pain. I shall never forget the man's amazement as we went on. He kept crying, "How strange! how wonderful! how delightful! Great God! it's a miracle!" Till at last his excitement and bewilderment became so ludicrous that I was unable to desist from laughing. As he slept ill, I desired the hospital apprentice to try to put him to sleep the same night. He was mesmerised for twenty minutes lying on the coverlet; at the end of this time I called upon him loudly by name, without disturbing him, and he was then lifted and put under the quilt, sleeping soundly.—March 12. His cramped position in the cart for so many hours daily brings back the pains in his leg, but they can always be chased away by a few minutes' local mesmerising, as I have shown to several parties of gentlemen I met on the road; and the knee continues straight. The chest is also free. I do not pretend to say that this man was cured, for his constitution was ruined; but I should be glad to know what else could have done so much for him.—March 11. G. Adamson, her Majesty's 53rd Regiment, having seen Canvan put to sleep yesterday, begged Mr. Cox to do as much for him, as his shoulder ached severely, and prevented his sleeping; his arm had been taken off at the shoulder joint. Mr. Cox complied, without speaking to me about it, and in a very short time put him to sleep. He told me this morning that he tried all he could to keep awake to watch the effect on himself, but he very soon fell asleep, and had a good night. Other aching stumps were soothed by local mesmerising, and I encouraged the men to learn the processes, that they might be able to instruct their comrades how to relieve them. Mesmerism is pre-eminently the soldier's friend,

and the regimental surgeon who confines himself to laughing at it will soon be punished by the distrust of both officers and men. These are the chief incidents of my week's mesmeric campaign.—April 11. Mr. C. has come up from Calcutta: he has been troubled for three weeks with severe rheumatism in his left knee: it is contracted, swelled, shining, and hot, but not red, and so tender to the touch that he dreads his children approaching him, lest they should touch his knee by accident. He cannot sleep, has no appetite, and looks worn-out and languid. I mesmerised his knee locally for a short time, and, like Canvan's, it gradually became straight. In twenty minutes he allowed me to press and strike his knee with violence, without complaining, and then got up and walked without pain, but stiffly, from thickening of the joint. He had a crutch lying at his side when I came in, and could not move without it.—April 12. Has slept very well, the first time for three weeks: the swelling, heat, and tenderness of the knee are less, and I again removed the latter by a few minutes' local mesmerism.—April 18. The gentleman he lives with has mesmerised him generally for an hour daily, but without entrancing him: he sleeps and eats well, and feels his nerves restored. There is only some stiffness of the joint left, and he returned to Calcutta to-day.—April 8. Two days after my return from the army, I was requested to see Miss —, aged 16. I found her lying on a couch, complaining of excruciating headache on one side of her head, with a weight on the top of it, and throbbing of the right temple, so severe that she said that she would like to open the veins with her scissors. Her eyes were heavy and suffused with tears; she looked pale and exhausted; had no appetite, and whatever she ate turned acid immediately; the least exercise fatigued her; coming upstairs distressed her breathing, and she heard every pulse in her body. Although naturally cheerful and active, she had been for a fortnight dispirited and listless. During the last ten days her temples had been leeches; she was afterwards bled standing; mustard poultices were applied to her feet, and strong medicine given on account of this cerebral congestion. The order "repetatur" had been given, if things did not soon mend. These measures relieved her a little for a short time; but she has suffered much daily ever since, and to-day, says she is as bad as ever. Her mother said, that she feared it would now be necessary to apply the leeches to the head, and the blister to the neck, which had been ordered in the event of her not getting better soon. In reply, I said, that there was a possible source of error, which I should like to remove before resorting to such heroic remedies. The state of the young lady's constitution was such that I thought it possible her sufferings arose from debility of the nervous system, rather than from sanguineous congestion, and I said that I could probably decide this on the spot, if permitted to make an experiment. The parents having no objection, I mesmerised the young lady's head and spine, and in a quarter of an hour, all the pain, weight, and throbbing had gone; her usual animation of look and manner returned, and she felt quite well, she said. In an hour after, she ate her dinner with appetite, the first time for three weeks, and digested it well.—April 18. She has continued perfectly well ever since her first mesmerising; but as a general stimulus she has been mesmerised daily for a few minutes, and, all her natural functions having been restored, it was left off to-day.—May 20. She keeps quite well. In cases like this, where the diagnosis is very difficult, and accuracy of vital importance, mesmerism—like the conjuring wand of the adept—leads the physician directly and infallibly to the fountain-head of the evil, and—like the spear of Ithuriel, in a moment reduces assumed appearances to their true characters and relations. With my former medical knowledge, I could only have proved the correctness of my suspicions by a long and troublesome course of treatment, and if successful, it would probably have been said, that the disease had changed its nature; but as it happened, the disease existed in its first intensity, and the metamorphosis took place on the spot.



# OCCURRENCES IN PORTO RICO AFFECTING THE LIBERTY AND PERSONAL INTERESTS OF A MEMBER OF THE MEDICAL PROFESSION.

By Dr. D. M'CONNELL REED.

(Concluded from p. 51.)

At page 51, where it is stated that on my arrival in England, in July, 1842, I met my brother, the Rev. Hugh Reed, an important omission occurs, which I now supply. It is, that he was doing the clerical duties of the parish of Stepney, in the absence of the rector and the curate, and that he invited me to stay with him; and because his letters were addressed to the Rectory, Stepney, mine were also dated from the same place. It will be found, from the sequel, that this was an important omission.

In compliance with Lord Aberdeen's request that I would communicate my complaints in writing, I sent his lordship a full detail of what I have already stated, dating my letter from the Rectory, Stepney. In that letter I also urged on his lordship the advantages that would arise to British enterprise from the appointment of a Consul at Porto Rico; and I at the same time forwarded copies of letters expressing the same, which I had received from other British subjects, and mentioned the "Report on the Commerce and Agriculture of the Island," which I had hastily thrown together during my confinement in the capital.

After despatching this letter, I waited a reasonable time for an answer to it; but I at last made up my mind that I should receive no reply unless further steps were taken. I therefore went to the Temple, and consulted a legal friend on the best mode of procedure; he recommended me to address Lord Canning on the same subject. Accordingly, I wrote a letter to his lordship, stating that I had previously written to Lord Aberdeen, and detailing my grievances. This letter I dated from 3, Beaumont-square.

To this letter Lord Canning speedily replied as follows:—

"Foreign-office, Aug. 12, 1842.

"SIR,—I am directed by the Earl of Aberdeen to acknowledge the receipt of your letter of the 4th inst., on the subject of the difficulties which you had experienced in obtaining permission to practise medicine at Porto Rico, and suggesting the appointment of a British Consul in that place; and I am to state that the question of the appointment of a British Consul at Porto Rico will be considered by her Majesty's Government, but that Lord Aberdeen cannot hold out any hopes of conferring such an appointment upon you.

"I am, Sir, your most obedient humble servant,  
"CANNING."

I now determined to turn my attention to something else, and to await the appointment of a Consul at Porto Rico; but after waiting nearly five months without hearing of the appointment in question, and beginning to feel the inconvenience of leaving my West India affairs so long neglected (for I had left my pecuniary affairs in a very unsettled state at Porto Rico), I spoke to my friend Dr. Rae Wilson on the subject, who kindly gave me a letter of introduction to Mr. Joseph Hume, M.P., who, after hearing my story, told me that he had a friend or relation, also a medical man, who had suffered similar grievances as those which I complained of, from the Spanish Government in Manilla; but that he was afraid he would get no redress. I, however, left a copy of my Report and some other papers with Mr. Hume for his perusal; but some events of a private nature now took place, which determined me to proceed to St. Jago da Cuba, and, being on the eve of taking my departure for that place, I wrote to Mr. Hume for my Report and other papers. In reply I received the following note:—

"Jan. 30, 1843.

"Mr. Hume presents his compliments to Dr. Reed, and sends a note for Mr. M'Gregor, of the Board of Trade, who has the Report sent by Dr.

Reed to Lord Aberdeen; and Mr. M'Gregor will be pleased to see Dr. Reed between one and three o'clock.

"Mr. Hume returns both Dr. Reed's Reports, and is obliged for the first one, which he has read; but he has not time to read the other, which Mr. M'Gregor may wish to see.

"Mr. Hume hopes Mr. M'Gregor may do Dr. Reed some service with the Spanish Minister here."

After receiving this note, although my passage to St. Jago da Cuba was all but engaged, I postponed my departure in order to see the result of my interview with Mr. M'Gregor, not doubting that the interest which a member of Parliament, and that so honest a man, appeared to take in my affairs, would be productive of some good results. Accordingly, the day following I called on Mr. M'Gregor, at the Board of Trade; he received me very courteously, and stated that my Report contained very valuable information; and that he certainly was of opinion that the appointment of a Consul at Porto Rico was necessary, and that, in the event of one being appointed, he thought I would have a very good claim on the Government for the appointment. He said he had been trying to get an opportunity of bringing my Report under the attention of Mr. Gladstone, but that such was the press of Parliamentary business at the same time that he had not been able to succeed. He added, however, that he would do so as soon as possible, and let me know the result. During the interview, Mr. M'Gregor said nothing about what Mr. Hume had hinted, viz., doing me service with the Spanish Minister.

A few days after the interview just related, I received a letter from Mr. M'Gregor, to the effect that Mr. Gladstone had been so much occupied that Mr. M'Gregor had had no opportunity of bringing the subject of the report before him, but that he hoped to do so in a day or two.

This was followed, a few days afterwards, by another note to the same effect: Mr. M'Gregor adding that he "regretted my time was so limited, as here things connected with such matters as mine moved on very slowly in Parliament time; and he feared that at present there was little chance of the Foreign-office appointing any one Consul at Porto Rico, whatever might be done some time hence." He added that before I left town he would be happy to see me, any day about three o'clock.

I now called on Mr. M'Gregor, who told me he thought that, if I could wait four months, something might be done; but that, if I left the country then, I should lose my chance.

I felt convinced that a man of Mr. M'Gregor's gravity would not say anything he did not really mean; and I therefore determined, whatever might be the present inconvenience, to wait and use my best efforts to accomplish the object for which I visited England, viz.—the redress of my own grievances, and a provision for the redress of the grievances of future sufferers, at Porto Rico—in other words, the appointment of a British Consul at that place. I therefore consulted Mr. M'Gregor as to what steps I should take, in order to draw the attention of the head of the Foreign-office to the matter in hand. He said, get up a petition on the part of the merchants connected with the Porto Rico trade; but this I found was no easy task, for there are no mercantile houses exclusively connected with Porto Rico business, although there is a large amount of business carried on by various houses at different times; whence it is evident that, strictly speaking, there are no Porto Rico merchants in London. I, however, wrote to the principal British merchant at Porto Rico, stating what Mr. M'Gregor had recommended; and I also addressed Mr. Gladstone on the subject of my Report. In reply I received a note from Mr. Gladstone, through his secretary, to say that his attention had been called to my Report, but that he had not then had time to examine it. With respect to the appointment of a Consul at Porto Rico, Mr. Gladstone would not

be able to interfere, beyond giving his opinion of the Report.

From the gentleman to whom I wrote at Porto Rico I received the following reply:—

"Guayama, Porto Rico, Feb. 27, 1843.

"DEAR SIR,—I have much pleasure in acknowledging the receipt of your letter of the 27th of February, and can assure you that I have perused with interest your remarks relative to the appointment of a British Consul to this island, and shall do all in my power to promote so desirable an object, and one in which both myself and every other British subject has so deep a stake. The trade of this island with the British colonies, as well as with Great Britain, is increasing, and, should a reduction be made in England on foreign sugars, will, no doubt, become very important. In 1840, one hundred and thirty-five British vessels loaded here, at the various ports, with about 900,000 dollars' worth of produce.

"I notice that you recommend me to get up a petition to the British Government on the subject, and to get the signatures of the British residents here; but as I do not know to whom it should be addressed, nor the proper form, I think you had better have it drawn up to suit yourself by some competent person, and forward it to me here, care of Jas. De Beltgens and Co., St. Thomas, and immediately on its receipt I will get the signature of every Englishman in the island; a copy had also better be sent to me, care of Messrs. E. Dunscomb and Beckwith, New York, as I shall be there in August, and thence proceed through the British provinces, where I can get the signatures of a vast number of persons interested in this trade. Those two petitions, together with your efforts on the spot, will, I think, have the desired effect. Pray lose no time in writing me in reply to this, and believe me.

"Yours truly,

"BRIAN O'HARA."

This letter did not reach me, through some neglect of the post-office either at Porto Rico or in this country, till May, although it is dated February, which must be intended for March, as mine was written in February. When I received it I was residing at Bath, and I immediately drew out the petition, addressed to the Right Honourable the Earl of Aberdeen, her Majesty's Secretary of State for Foreign Affairs, and sent it to Mr. O'Hara, according to his request, to have the signatures attached.

About this time I received a letter from Mr. M'Gregor, stating that Mr. Gladstone had read my Report, and had directed him to say he was much pleased with the information it contained, but that, the patronage of the Foreign-office being altogether Lord Aberdeen's, he could not very properly interfere.

In the meantime, seeing that hitherto no Consul had been appointed, I was preparing to make a direct application to Lord Aberdeen for the appointment for myself, which I had never before done, although he seems from the first to have surmised that such was my object in coming to England. Accordingly, I wrote to my brother in Jamaica, the Rev. Hugh Reed, requesting he would see Lord Elgin, and call to his lordship's remembrance the interview which I had with him in Porto Rico, and his promise to assist me, if he could, through my difficulties; and to suggest that the most effectual mode of serving me, under existing circumstances, would be to give me a letter of introduction to Lord Aberdeen. I also informed Mr. M'Gregor of my intention to make an application to Lord Aberdeen for the appointment of Consul at Porto Rico, and asked him to obtain for me Mr. Gladstone's permission to refer Lord Aberdeen to him for his opinion on the merits of my Report.

Mr. M'Gregor's reply was as follows:—

"Board of Trade, July 15, 1843.

("Private.)

"DEAR SIR,—I would have replied to your letter before, but wished to bring your Report again under Mr. Gladstone's attention, which, in con-



sequence of very pressing business on his part, I was unable to do until to-day. He allows me to say, that you may state that he has read it with approbation, and that Lord Aberdeen may refer to him for his opinion on it. This you may communicate to Lord Aberdeen. Yours, truly,  
(Signed) "J. M'GREGOR."

I now wrote a letter to Lord Aberdeen, stating the opinion of the heads of the Board of Trade respecting the necessity of appointing a Consul at Porto Rico, my own grievances, and the general desire on the part of the British subjects there; and I concluded by soliciting the appointment for myself, referring his lordship to Mr. Gladstone for his opinion of my Report. To this letter I received no reply. About the end of September, however, I received a letter from my brother in Jamaica, enclosing a sealed letter of introduction from Lord Elgin to Lord Aberdeen. On receiving this letter, I informed his lordship that I was in possession of a letter of introduction from Lord Elgin, and begged he would grant me the favour of an interview in order to present it. In answer to this communication I received the following note from Lord Aberdeen:—

"Lord Aberdeen presents his compliments to Dr. Reed, and requests that he will be so good as to forward to him, by post, the letter from Lord Elgin referred to in Dr. Reed's letter of the 13th of October.

"Foreign-office, Nov. 1, 1843."

According to Lord Aberdeen's request, I forwarded Lord Elgin's letter by post, and after waiting a few days I received the following communication:—

"Foreign-office, Dec. 16, 1843.

"SIR,—I am directed by the Earl of Aberdeen to acknowledge the receipt of your letter of the 7th inst., requesting an interview with his lordship; and I am to express to you his lordship's regret that the pressure of public business upon his time will not enable him to see you; and Lord Aberdeen requests that your communication to him may be made in writing.

"I am further directed by Lord Aberdeen to acquaint you that the various representations which have been received from you on the subject of the appointment of a British Consul in Porto Rico are under the consideration of her Majesty's Government; but I am to repeat to you that Lord Aberdeen cannot hold out to you any hope of such an appointment being conferred upon you.

"I am, Sir, your most obedient humble servant,  
"H. A. ADDINGTON.

"Rev. Dr. Reed, Bathwick-terrace, Bath."

After reading this letter, I was at first somewhat surprised at the easy manner in which I had obtained holy orders; but perceiving immediately afterwards (as I supposed) the art of the diplomatist, my surprise merged into anger at the shifts to which a great man found it necessary to resort in order to cover his conduct towards a simple man who had at first approached him without an introduction.

I now wrote to my brother at York, and to Lord Sligo, for testimonials; and I obtained another from the Rector of Bathwick, where I was residing.

These testimonials I sent to Lord Aberdeen; but I never heard any more from or of his lordship, except one day, having occasion to go to town, I called on Mr. M'Gregor, who told me that a Consul had been very lately appointed at Porto Rico; but that Lord Aberdeen had told him, that he would not have given the appointment to Dr. Reed if there had not been another man in England. A consul now being appointed at Porto Rico, English medical men will in future be protected from the injustice to which I was obliged to submit at the hands of the Spanish authorities.

OBITUARY.—On the 16th inst., at 69th year of his age, William Boxill, Esq., M.D., formerly of the Island of Barbadoes. On the 15th inst., Wm. Gill, Esq., Surgeon to the Liverpool Northern Hospital.

## HOSPITAL REPORTS.

### MEDICAL TIMES PRIZE REPORTS

THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

### SURGICAL CASES.

(Continued from p. 54.)

#### INJURIES OF THE HEAD.

Fractures of the cranium may be divided into two classes: those in which there is no depression, and those in which there is. In the first class, the bone being fractured keeps its proper level, and produces no immediate bad symptoms; in the second class, the bone, being depressed as well as fractured, presses upon the brain and causes a train of symptoms which would end in death, if the pressure were not removed. In the simple cases of fracture without depression, the fracture itself is not the cause of the bad symptoms; which often follow. The mere division of the bone (taken alone) can never cause any bad symptoms, it can neither press upon nor derange the structures situated beneath; but these fractures being the result of violence, they may be attended with concussion or extravasation, and hence arises the danger; and, in addition to this, there is also danger from subsequent inflammation. These fractures, like all others, may be either simple or compound. The simple fracture, when not attended with any urgent symptoms, often remains for ever undiscovered; it is not brought into view by any wound in the integuments, and no possible good could arise from exposing it by an incision. The union of the divided parts takes place in this as it does in fractures of other parts, with the exception of there being no provisional callus; it is not at all required in this situation, nay, it would be excessively injurious if formed on the interior of the bone, by producing pressure on the brain, and therefore we never meet with it. In the case of Thomas Sponge (case 1) we have a good example of compound fracture of the skull, unattended with depression of bone, or at least so slight as to be of no consequence, being merely sufficient to catch the nail. He fell from a height of about five feet, and struck his head against a bar of iron with a sharp edge; he was stunned for a few minutes, but recovered his senses and was able at once to walk to the hospital. On admission there was a scalp wound, about an inch and a half in length, leading down to a fracture in the anterior inferior angle of the right parietal bone; his intellect was perfect, pupils natural, and the countenance pale. At 10 P.M., the pulse being full and strong, he was bled at  $\frac{3}{4}$  xiv., when the pulse became lowered in strength. This having been done, as a precautionary measure he was well purged, and his bowels afterwards were kept freely open. He never had a single bad symptom, and eventually left the hospital cured. This man was a strong, robust, healthy-looking individual, and one who could bear depletion well. In all cases of injury of the head, the antiphlogistic plan of treatment is necessary, but it must vary in degree according to the age and constitution of the patient. If in a plethoric individual we did not deplete sufficiently, there would be great danger of mischief arising from inflammation of the brain; but if, on the other hand, we carried our depletion too far in a child, an aged or a weak person, we should run great risk of causing secondary deposits to occur. The extent to which the depletion should be carried is often a very nice point to decide, and one which practice alone can teach. Here, then, is a case of compound fracture of the skull requiring no further treatment than a case in which there is a scalp wound, attended with concussion, and no fracture; and this is frequently the case in fracture without depression: the reparation of the fracture must be left to nature, and any other symptoms treated as they arise. Where there is a fracture with depression of bone, the same passive treatment will not suffice; the depressed bone presses upon the brain, and it is absolutely necessary that this pressure should be removed. In injuries of the head, insensibility may arise from two different causes: a man may receive a blow on the head, and at once become insensible; he

may remain in this state for an indefinite period, it may be some minutes, it may be hours, or, if the shock be very severe, he may never rise again. This is concussion, and from this state the patient after a certain period recovers, but he may again relapse into a state of insensibility after having perfectly recovered his faculties. This second state of insensibility does not depend upon concussion, it is the result of pressure; and it therefore becomes the duty of the surgeon to ascertain the cause of this pressure, and, if practicable, to remove it. If the pressure be caused by a portion of depressed bone, it is generally evident at once, and is easily removed; but the case may be more complicated, it may depend solely upon the extravasation of blood; and it is difficult, and often impossible, to discover the exact seat of the extravasation; the case must therefore be treated like one of apoplexy.

Fractures of the base of the skull are extremely dangerous, and in most cases fatal. John Smith (case 2) fell from a great height, and was brought in with all the symptoms of fractured base of the skull: he was in a state of collapse with cold extremities, stertorous breathing, and bleeding from the nose and ear; and afterwards there was strabismus of the right eye. This man, in all probability, fell upon his head, and the whole weight of his body would thus be thrown suddenly with great force, through the medium of the spinal column, on to the foramen magnum and cuneiform process of the occipital bone, causing a fracture through the foramen magnum, cuneiform process, and part of the temporal bone. This, however, could not be proved, as the man fortunately recovered. I do not think myself that it is not absolutely necessary for the patient to fall on his head in order to produce this accident, for I have heard it stated by good authority, and I have no doubt but that such is often the case, that the patient lighting on his feet after falling from a great height will meet with the same accident; the spinal column being driven suddenly with great force against the base of the skull, in the same manner that the handle is driven into a broom when it becomes loose, by striking it against the ground. These cases are extremely dangerous, as they are mostly either followed by inflammation of the brain, or attended with extravasation. We see that Smith was sick, and afterwards became more sensible, and was able to answer questions. Now, with regard to this vomiting: when the pressure and consequent insensibility are great, the patient is hardly ever sick; but where it recurs we may look upon it in a good light, as it shows that there is some sensibility in the stomach, and that the system is therefore, in some degree, beginning to recover itself from the immediate effects of the shock. This man's pupils were dilated and contracted on the application of light; this is not a common occurrence, for, when the other symptoms of pressure are present, the pupils are most frequently insensible, motionless, and dilated, though sometimes contracted. The pupils will sometimes also remain dilated for some time, and then contract suddenly, and continue to alternate in this manner independently of light and darkness. In the case of Smith, and also of Thomas Sponge, there was a scalp wound; now, the same injury inflicted on the common integuments of any other part of the body would be attended with little or no bad consequences; but a wound inflicted on the scalp is not unattended with danger, for there is a free communication between the vessels of the pericranium and those of the dura mater, through the diploe of the skull, and consequently inflammation commencing in the pericranium is very liable to extend to the dura mater. A wound in the scalp may render a simple fracture of the cranium compound, as was the case with Thomas Sponge, or it may produce erysipelas, or extensive suppuration under the occipito-frontalis. In these two cases the wound was attended with no serious consequences; but, considering the dangerous and fatal results so often arising from these scalp wounds, we must always consider them as attended with danger. Besides these injuries to which I have alluded, the brain may suffer from concussion alone, without fissure, fracture, or extravasation of any kind; and this concussion is often attended with very alarming symptoms, and followed



by the most fatal consequences. These symptoms and effects may occur when the head has received no external injury whatever, but has only been violently shaken, the body only seeming to have sustained the whole violence. There are various degrees of concussion, and the symptoms are in proportion to the degree of violence which the brain has sustained. If the concussion be very severe, all sense and power of motion are immediately and completely destroyed, and this is quickly followed by death; in this case the patient never rises again. But the concussion may not be quite so severe; the patient may be deprived of sense and the power of motion, and he may be unable to rise for a certain time varying from a few minutes to several hours. During this time the skin is pale; the pulse slow, small, feeble, and intermittent; the extremities are cold, and the patient scarcely feels any injury inflicted on him, and the breathing, though difficult, is in general not stertorous. This state gradually passes off, the pulse and respiration become improved, and the extremities begin to regain some degree of warmth; the patient has now some sense of feeling, and soon becomes capable of answering questions, especially when they refer to his present sufferings; frequently he answers incoherently when questioned upon any other subject. The inflammation of the brain is moderate as long as the stupor remains, but when this goes off the inflammation is increased, and the most important and dangerous consequences arising from concussion follow. We have two very interesting cases in John Salter and Henry Lacey (cases 3 and 4). In the case of Salter it seemed as if there was an attempt made on the part of nature to recover his system from the immediate effects of the shock; he vomited, and there was a partial recovery of sensibility; the severe injury inflicted on the brain could admit of no more, and the subsequent extravasation of blood soon put a stop to these slight and transient appearances of returning sensibility: he was seized with convulsions and died in a moment. Henry Lacey was admitted into the hospital with two scalp wounds and symptoms of concussion; he was sensible on admission, and no bad symptoms appeared for some time after. Now, in the first stage of concussion very little, if anything, can be done; stimulants have very frequently been recommended, and this plan of treatment arises from an idea that the insensibility produced in these cases is of a similar nature to that which occurs in fainting. In the worst cases they cannot be administered, the patient being unable to swallow, and, even if he could, in all probability the brain and nerves would be insensible to any stimulant which could be administered; but where they can be, and are administered, I cannot think that they can be of any advantage, but rather the contrary, for they may excite violent action and thereby tend to exhaust parts already weakened, and, as inflammation frequently follows sooner or later, these stimulants will, in all probability, aggravate the inflammatory symptoms when they arise. Sickness and vomiting are early symptoms, seldom existing after the effect of the first shock has passed off. The bowels are generally torpid, and for this reason purgatives should be administered in all cases of this kind. In all these cases the subsequent inflammation, which may occur when reaction takes place, is the principal thing that we have to guard against; this, if it cannot be prevented, must, at any rate, be moderated and subdued, if possible. Bleeding is the chief remedy to be trusted to; but this must not be rashly had recourse to at the very commencement, when the patient is in a state of collapse; the system is then too weak to bear the loss of blood, and it would very probably at once destroy life. The state of the pulse is to be watched, and this remedy had recourse to as soon as the system is in a proper state to bear it. In many melancholy cases fatal inflammation ensues, and this rarely takes place until about a week from the time of the accident; a fortnight or three weeks often elapse before this occurs. This unfortunately happened in the case of Henry Lacey; he entirely recovered from the effects of the concussion; one scalp wound had healed, and the other nearly so; he had got up

and appeared to be rapidly getting well, when the fatal symptoms which carried him off showed themselves. He was trephined in the hope of being able to give exit to the matter, and thus remove the cause of pressure, but this existed in such a situation that it could not be evacuated, and, consequently, no benefit was derived from the operation. In some cases of this kind, the matter being circumscribed, we are enabled to evacuate it; and, with the knowledge of such a fact, I think that the operation in similar cases is not only justifiable, but we are bound to give the patient this chance of recovery. The symptoms which first show themselves are, pain in the head, with restlessness, flushed countenance, want of sleep, nausea, vomiting, and rigor not followed by sweating; the symptoms increase, and finally convulsions and delirium supervene, or the patient become comatose, and in this state dies. Blood may be effused beneath the cranium, but where extravasation of blood takes place, we have at once, or very soon after the accident, all the symptoms of pressure on the brain. This is not the case in inflammation and suppuration; the symptoms do not show themselves so early, and when they do appear they never at the first onset imply any unnatural pressure. The matter formed is sometimes confined between the dura mater and the bone, and in this case it may be evacuated by means of the trephine, the situation being known by the puffy tumour of the scalp; but unfortunately the matter often collects on the surface of the brain, as well as between the dura mater and the bone, and this shows the uncertainty of deriving any benefit from an operation in these cases. Our main object, then, is if possible to prevent inflammation from taking place, or to moderate its violence when it occurs, and thereby prevent those fatal consequences which would otherwise happen.

## REVIEWS.

*Chemistry and Physics in Relation to Physiology and Pathology.* By Baron JUSTUS LIEBIG, M.D., &c. 8vo. London, 1846., pp. 116.

There can be no doubt whatever, that to few men of the present day does the epithet, *clever*, apply with greater certainty than to Liebig. He is essentially everything that is comprised in that significant but equivocal denomination. Like it, he may be regarded as representing anything, or nothing, just as the case may be. His career has been one of idle curiosity, rather than of even creditable astonishment. Yet his aim has been to surprise the world with bold discoveries—of which he has fallen sufficiently short to give himself only the reputation of an eloquent adventurer in science. That there is every truth in this observation, is clear from the fact that many of his venturesous propositions were received rather as chimerical than chemical, on their first issuing—that many more were gravely, and with good reason, doubted, ere they had passed through the age of infancy—and that others, perhaps the majority, have either not been confirmed, or have been flatly contradicted, by his followers in the line of investigation. Liebig's great besetting sin is uncontrollable ambition—his great personal fault is the gratification of it. Were he made up of less extravagant materials, he would be in all respects a greater man. Variety, in fact, has run away with him. He seems to have become possessed with the notion that he is born to achieve mighty things, and he drives at the attainment of them with a reckless daring that is sometimes little short of insanity. Not satisfied with the common plan of arriving at truths by observation and experiment, he adopts the more uncommon one of guessing at them, and this, not as though they were riddles, but as though he had a right to them, and that "ask and have" was the favoured opportunity of his lifetime. It is this melancholy propensity which has not only driven Liebig into lamentable errors, but entailed the sad consequences of unscrupulous belief upon many who have committed themselves to implicit confidence in him. The darling delight of Liebig is to generalize, but he will not, if he can help it, deduct first; and, worse than this, he will not gather facts

enough to give to his propositions the substance of authority. In good truth, he can coin axioms much faster out of his head than he can get at them by the slower process of laboratory research. He shines much better as a philosopher of words than as a chemist of realities. Let us not be understood by the term philosopher to ally him to Bacon, Newton, or any of these. He is just the reverse of them. He is a good *guesser*—sometimes he guesses right, and then, like Murphy and his almanac, he gets the credit of discovery. Sometimes, again, he guesses wrong, and if contradicted, he has the good judgment, or rather sagacity, to take no notice of his opponents. A bold assertion has often plenty of believers, even though demonstration should prove its inaccuracy. It is thus that many of Liebig's statements have lost him no credit, even though less eloquent enunciators have denied them.

The same restless prompting after popularity which is apt to betray a man, in incautious moments, to say what is not *true*, is also apt to induce him to tell the world what is not *new*; at the same time dressing it up in the garb of affected novelty. This is a frequent practice of Liebig's. Axioms of the regular antique *caste* he puts before us, disguised in a little German obscurity of phrase; and expects, like the gipsy with the stolen hats, that we shall not know our own again. From his first effort at authorship until his last, his every production has been redolent of this artistical trickery. On the part of a man whose business is book-making, perhaps it may not be objectionable, because it is a branch of that particular calling; but it is decidedly too bad from one who professes to enlighten us with homespun truths, for which he is indebted to none other brain than his own. Another plan of our author is, to make a statement, not exactly involving an absurdity, but startling in the very face of it, and admitting neither of *proof* nor *disproof*. This said assumption he is indebted to his own fancy for, and, as his *ipse dixit*, can call it his own, cherish it, and swear by it, for the simple reason that it is not capable of contradiction. At the same time, as we have said, it is equally incapable of demonstration. This, however, little concerns Liebig, provided he can throw out at a venture an axiom created of *fancy*, which will defy any more sober-minded man to combat by *facts*. For example, he says, at p. 9 of his "Animal Chemistry"—"Every conception, every mental affection, is followed by changes in the chemical nature of the secreted fluids; that every thought, every sensation, is accompanied by a change in the composition of the substance of the brain." There's a precious tissue of twaddle! The coolness, too, with which the assertion is positively put forth, is very amusing. He does not say that such and such changes may possibly be consequent upon certain intellectual processes, but boldly affirms that *they are so*. Yet Liebig must know, or at least ought to know, that neither he nor any other man could possibly prove such a thing.

Regarding the work before us, it is essentially characteristic of the author. It exhibits considerable evidences of talent, shrewdness, and acumen; but is at the same time full of the distinguishing failings we have already pointed out. It is just a work a man would be likely to write, whose leading desire was to make the most of himself and of his subject, no matter what the means for attaining this vain end. It consists of a series of statements, uttered axiomatically, and with pompous headings, as though they were fundamental truths of nature, now spoken for the first time from an eminence occupied only by the author for the service of the rest of the world standing considerably below him.

The first proposition, flourishing under the "development of the natural sciences," is to the effect that "the history of science teaches us that every branch of physics comprised at its commencement nothing beyond a series of observations and experiments which had no obvious connection with each other." (P. 1.) But we did not need Liebig to tell us that! It has been known time out of mind, and affirmed in more intelligible phraseology than that we have quoted, by authorities without number.



"Many branches of physics," says he, "as mechanics, hydrostatics, optics, acoustics, the theory of heat, &c., have been elevated to the rank of abstract sciences, in consequence of their permitting all known causes of the phenomena of motion, air, sound, heat, &c., to be traced through a series of syllogisms to certain truths." (P. 2.) In the first place, we deny, most unequivocally, that the sciences mentioned above are, scientifically speaking, *abstract*; and, in the next place, we deny that the amount of *certainly* they have already attained to has been through an exclusive process of syllogisms; in fact, we deny that they owe any of their *substantiality*, in the smallest degree, to syllogistic reasoning. Liebig must have been dreaming with a copy of Aristotle under his pillow!

At pp. 2 and 3 we learn that, "If we can regard it as undoubted that not only the phenomena of inanimate nature, but also those of animal and vegetable life, are peculiar to themselves, stand in certain relations to each other, and depend upon certain causes; and if, further, it be true that it is only by a knowledge of these causes or conditions that we can gain a clear insight into the existence of organic processes, then must the investigation of the reciprocal dependence and the conditions of the phenomena of life be regarded as the most important department of physiology."

Here, again, we have a ridiculous obscurity or affectation of language; it is difficult to say which. But, excepting this, what "news" does the pompous paragraph convey? In the first place, "the phenomena of inanimate nature, and of animal and vegetable life," *must be peculiar to themselves*, for there are none other in existence; secondly, they *necessarily* "stand in certain relations to each other," for everything in the palpable world is *relative to something else*; thirdly, it is *not possible* that such things *should not depend* upon certain causes; and fourthly, the "investigation of the reciprocal dependence and conditions of the phenomena of life" *has always been regarded* "as the most important department of physiology." Thus we see what a little simple dissection reduces this effulgent sentence to. How full it is of commonplace facts and fallacies put forth in the garb of philosophical speculation and query!

"The explanation of many natural phenomena requires," says he, "in most cases, nothing more than acquaintance with the relation of dependence in which they stand one to another." (P. 3.)

There is, we should think, scarcely an English schoolboy in his teens, who could not tell Baron Liebig that an acquaintance with *every* natural phenomena is obtained in this way, and is not obtainable in any other.

"There can be no question that, at some future time, as chemistry loses the character of an experimental art, so will physiology be capable of ranking as a deductive science." (P. 3.)

What necessary connection there is between chemistry losing its character, and physiology becoming a deductive science, is better known to Liebig than to us. In our judgment, the sentence, with its assumption of *cause* and *consequence*, is about as full of sublime nonsense as it well can be. There is actually no meaning in it. As for chemistry losing its practical or experimental character, the very nature of the science forbids such a thing. But, admitting the fact, what has this to do with making physiology a deductive science? Physiology is already, as far as its truths go, *made up of deductions*, and when these are wanting, and their place is supplied by *speculation*, we have to thank idealists, like Liebig, for giving us *imaginings* instead of matters of fact. What an acquaintance a man must have with physiology, and with deductive science, to talk of the former *hereafter* acquiring that character!!

"Most persons are unable to distinguish psychical from corporeal phenomena, or the idea of vital power from the form of living organs." (P. 4.)

Does our author, then, assert the identity of psychical and vital phenomena? Does he mean to say that *mind* and *life* are one and the same thing? Such twaddle may be worthy of a baron, but we should consider it very unworthy of a philosopher. As for an idea of vital power apart from living organs—there could be no such thing

Vital power is not an *entity*, or an *abstraction*—we cannot possibly know anything of it apart from the organs to which it owes its manifestation.

"A man, even of the most cultivated mind, cannot wholly emancipate himself from the dominion of those laws on which his powers of comprehension are dependent." (P. 4.) We should decidedly think he could not! But the notion occurs to us, that this common old truth, well known in the axiom, "*nihil in intellectu, quod non prius in sensu*," had been better and more usefully expressed in the intelligible language of the original, or in something like it, of which we have plenty of racy English specimens, than affected to be displayed as a novelty of information in a round-about phrasology, that only serves to obscure the sense it is intended to convey.

"Innumerable instances testify that even the most accurate observers of their age have regarded certain facts or representations as impossible, simply because their power of comprehension was unable to receive them; while their successors have not only comprehended them, but have universally received them as incontestible truths." (Pp. 4, 5.) We should doubt very much whether the "*power of comprehension*" on the part of the moderns is any greater than that of the ancients; indeed we have plenty of proof to the contrary; and were it otherwise, we should not ascribe this as the reason of the commonplace fact Liebig has placed before us; but rather that it resulted from the great increase, in recent times, of *demonstrative knowledge*, and its *collaterals*, by reason of which our *belief* is vastly *helped*. In fact, it is only putting in a flourishing phraseology the homely truth, that the world is growing wiser every day.

"That two chemico-active bodies can form a combination of definite unchangeable properties, through their union in indefinite or unlimited proportions, appears, even to our sound powers of comprehension, to be untenable." (P. 6.) No doubt about it! Here, again, the absence of precision of expression on the part of the baron is lamentably conspicuous. We gather from the sentence, that he thinks the two bodies he mentions can form, by their union in *indefinite proportions*, a *definite compound* of unchangeable properties. If he really think so, he is quite welcome to the belief, in which we fancy he is somewhat singular; if he mean the opposite, which he perhaps may do, for his cloudy sentences are often capable of double interpretation, then he has to thank Dalton for the information he conveys.

"If the uniting link that associates a fact with the usual course of our ideas be wanting, the fact itself will appear devoid of truth and comprehensibility." (P. 6.)

What, in the name of all that is metaphysical, does the baron mean by the *uniting link of facts and ideas*? Who ever heard of such a thing before? A fact is something that owes its existence to a certain amount of evidence or proof in its favour; and in proportion as this is ample and conclusive, does the fact appear to be true and comprehensible. We fear the prevailing fault of our humorous author is in possessing more *ideas* than *facts*.

"This is one of the greatest impediments that stands in the way of the application of chemistry to psychology, and of a simple consideration of chemical discoveries on the part of many physiologists; and if to this be associated the assumption of facts on experience, the correctness of which has no other foundation than the opinion of many centuries," &c. (P. 7.)

We have heard of a disquisition on the anatomy of angels, and thought it droll enough; but this comes very short of the *application of chemistry to psychology*! What can it mean? What is intended, again, by "the assumption of facts on experience"? An *assumption* is a *postulate*; the *facts of experience* are just the converse! A boy in a minor school would be flogged for writing such nonsense.

"It was left to physiologists to explain how a

body could have an increase of weight after losing one of its constituents; and further, how, under any circumstances, a body can show a fluctuation in weight." (P. 9.) This discovery was not made by a *physiologist*, but by a *chemist*.

"Vegetation, irritability, sensibility, action and reaction, &c., are all regarded as *entities*." (P. 10.) By whom? We wish our author had named any single rational being who had ever entertained such an unlikely belief. We expect this is a genuine *assumption* of the baron's—one of those freaks of imagination for which he is remarkable.

"The same degree of heat which is a condition of the combination of the oxygen of the air with mercury produces the opposite effect; the decomposition of the oxide of mercury into mercury and oxygen; if the temperature be raised a few degrees." (P. 14.) This stands as a separate paragraph, just as we have quoted it; and a beautiful bit of obscurity we call it. After much labour, we have found its meaning to be, that the "*same degree of heat* produces the opposite effect if its *temperature be raised a few degrees*!" We defy any critic to prove that it is capable of any other interpretation. And this from the pen of a philosopher!!

"By way of rough illustration we may compare the healthy organism, in many respects, to a large Transatlantic steam-boat." (P. 19.) Why would not an English steam-boat of medium size do? Are we more like Jonathan's craft because the latter are high pressure?

"It is impossible to arrive at the comprehension of a subject, if, as is done by some pathologists, a term—such as an irritant—be made to include alike active causes, which change the form and composition of organic bodies, and such as light, sound, &c., which do not possess this capacity." (P. 20.) The term *capacity* here, coming from a chemist, is decidedly inappropriate; but, without quibbling about words, there is a palpable war against truth in the sentence. Light is capable of changing the form and composition of organic bodies, which Liebig may easily satisfy himself of, if he will only refer to the works of the various botanists who have tested the influence of light upon growing vegetables, flowers, fruits, &c. Any dabbler in animal and vegetable physiology knows what are the relative effects of keeping living things in darkness and daylight. An etiolated plant or animal is very different both in form and composition from one that has enjoyed the full influence of sunshine.

"An explanation may be given of the connection between the immoderate use of spirituous liquors and self-combustion, since it is most probable that none but drunkards would be likely to fall into the fire and be thus consumed." (P. 29.) In our opinion, apoplexies, epileptics, and the partially palsied are as likely as drunkards to fall into the fire, if they come near it; but we quote the sentence for the sake of its novel communication that—being burnt to death by fire, and self-combustion, are synonymous!

"Vital force belongs to the same category as chemical forces, as far as the former manifests its activity only by direct contact, or at immeasurably small distances." (Pp. 34, 35.) This is a puzzler upon which we can make no comment.

"A number of bodies are decomposed by heat, and in these cases its action is perfectly similar to that of a mechanical force. Heat acts like a wedge driven in between the atoms." (P. 37.) Does Liebig actually mean to say that heat applied to a body affects the spaces between its particles, and not the particles themselves? Nonsense! If this were the case, however, the particles of the body might be *separated*, each from the other; they could not possibly be *decomposed*!

"Certain compounds of zinc, copper, and nickel, dissolve easily in sulphuric acid, with a development of hydrogen." (P. 39.) Where does the hydrogen come from? We suppose the baron means sulphuric acid and water.

(To be continued.)



## TO CORRESPONDENTS.

**THE MEDICAL TIMES** is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

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**Chirurgus.**—We believe so.

**A Medical Assistant**, who gives us his address, informs us that he applied in answer to an advertisement to offer his services as assistant to Mr. M'Cann, a gentleman in large practice at the West End of London. The duties of the situation were to dispense, and, in the absence of the visiting assistant, to visit and attend midwifery. For these services the remuneration offered was a pittance £15 per annum. Our correspondent adds—"A stable-boy advertised a few days since for a dispensing assistant's situation. This only shows the estimate the lower classes form of the subordinate duties of the profession. Is it wonderful that they should depreciate them? The stableman, estimating the importance of duties by their market price, naturally concluded that those which fetch the highest must be the most arduous, and, I suppose, thought he would try his hand at poisoning her Majesty's lieges in preference to cleaning horses. While medical men continue to grind down their assistants, they must not complain if poor-law guardians and others estimate their services at a very low figure." A Medical Assistant forgets to tell us that he is a duly-qualified practitioner.

**An Old Correspondent** writes to us in a depreciating tone about "the University College Association for maintaining and promoting Religion among the Students." Our correspondent is in error. These gentlemen properly desire to remove the stigma that has been so often thrown on their alma mater, of possessing no claim to religious principles; and the younger brethren only aspire to enlighten their elders. By the way, our Old Correspondent neglects to supply the hiatus in the prospectus of the society he has sent us. To whom is application to be made "at the hospital"? The porter knows nothing of the affair, and we are anxious to recommend to its charitable aid the ease of some half-dozen of the lecturers.

**An Old Student** at the University College School writes—"I was surprised and disgusted with the conduct I noticed the other day among the students, when, happening to be in town, I attended one or two of the lectures given by my former preceptors, at the University College School. Students of the present day appear to visit lecture-rooms not for the purpose of instruction, but for that of creating disorder and disturbance. I particularly noticed irregular conduct during two lectures—one delivered by Dr. Thompson, on *Materia Medica*; the other by Mr. S. Cooper, on *Surgery*." Our correspondent adds, that "both these gentlemen are distinguished by kindness of heart, and should be venerated on account of their well-deserved and high positions as veterans in their respective sciences; these circumstances rendering the disorderly conduct referred to, if possible, more disgraceful and ungentlemanly than it otherwise would be." We quite concur in this opinion.

**J.**—The transaction with the "member" named took place at Bellamy's.

**K. H.**—It rests with the Lord Chancellor to make the regulations and fix the scale of fees in the case of lunatics. The statute is the 8 and 9 Victoria, cap. 100.

**A Practitioner.**—Dr. Guy speaks doubtfully—and with reason—of the test. Our correspondent should consult the volume, which, we may add, is the best résumé of forensic medicine extant.

**Senex** is too diffuse for us. Besides, our readers would take little interest in having it proved by pages of theological extracts that Dr. Elliotson is wrong in affirming that Dr. Watson, the bishop, was a materialist on Christian principles.

**M.D.** will find an article on the subject he sends us, very much fuller, in the "Phrenological Journal." **Chirurgus** asks—"Is it true that Marshall Hall asked George the Fourth for a baronetcy, on the ground of his supposed discoveries?" We cannot say.

We have no space for the letter of Viator (Calcutta), inveighing against the publication by a medical contemporary of the confidential calumnies by Mr. Laurence of a brother surgeon—even though the manuscript was kept twenty years for the purpose of such betrayal and publication. The letter is written in a good spirit; but the treachery and slanders of ——— and men like him are commonplace incidents that cause no wonder.

**H. R.** should address Mr. Terry at Northampton.

## THE MEDICAL TIMES.

SATURDAY, OCTOBER 24, 1846.

## THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

WE need scarcely direct our readers' attention to the letters, of which the first is given this week, under the signature of "Vox Veritatis," written by a GENERAL PRACTITIONER, who has paid unflagging attention to every recent movement in connection with the subject of medical reform. We confidently auspicate from them a very able analysis of the whole question. The opening letter commences with a vigour of style and freedom of thought which prove that our correspondent exercises for himself a judgment in no small degree independent. While we have left him the liberty of thus speaking his mind unfettered, our readers will do us the kindness in return of supposing us to retain, and allowing us, if necessary, to express, our own opinion, just as decidedly whenever it may be in antagonism to his.

"Nobilitas sola atque unica, virtus."—JUVENAL.

WE confess that for a time—a brief time—we listened with some favour to the outcry of certain physicians, aided by certain pure surgeons and a few general practitioners, against the dispensing by medical men of their own medicines. Without a doubt there is something very seductive in the invectives against a mixture of trade with profession—something highly attractive of sympathy in the references to "an elevated and dignified" profession. The question offers itself—are the arguments more than seductive? Are the reasons advanced against open surgery and pharmaceutical practice more than specious? Let us see.

There are two questions to be looked to—first, the due and effective attendance of the public; and second, a fair attention to the interests of the profession as it stands. If the genteel and disinterested railers at pharmaceutical practice will only show that their innovation

is not inconsistent with these two great aims, we will abandon the field to them. They have not done this: can they?

A moment's thought places the fact beyond dispute that, if the great majority of the public cannot secure a ready and cheap medical attendance from qualified practitioners, they will go, and must go, to empirics. The population of working men, mechanics, and smaller shopkeepers will not incur that peril, nay, that certainty, of an expense, beyond their means, necessarily entailed by their entering the private house of a practitioner who lives by charging for his advice. A guinea, or half a guinea, or even five shillings, is more than three fourths of the people are prepared or, perhaps, able to pay. The druggist's shop, or, perhaps, that of a grocer near by, offers them almost the same promise of relief for less than sixpence, and the shop is invitingly open. Too poor to pay gentlemanly fees—fees, in truth, above their condition—they are too independent to go to a dispensary: these are the largest and best portion of our population.

Shut up the shops of general practitioners, forbid general practitioners to prescribe their own medicines, and what becomes of this population? You must either pauperize them or hand them over to cheap empirics. Rail, then, against pharmacy as these writers may (who fancy that the first duty of a medical man is to be very genteel), we reply to them that the change they seek would destroy two thirds of the legitimate medical practice of the kingdom, conjure up from the druggists a new body of doctors, and leave the great majority of our brethren without a fragment of their practices.

And here let us say that we participate in none of the vulgar prejudice against drug-prescribing or shopkeeping. The time is gone by when the talismanic word "gentleman," with its concomitant privileges, was restricted to "attorneys" by act of Parliament, and to independent idlers by social usage. Worth, private and public, is now the test and donor of that "gentler condition" once limited to a happy birth or wealthy descent. The merchant in his dingy office, the tradesman in his open shop, require—as they often possess—but high qualities of mind and heart to be as good society as the kingdom offers. The formal, old-fashioned barriers that formerly threw mankind into castes, in utter recklessness of their proportionate usefulness or worth, have perished 'neath the advancing glow of enlightenment like Arctic ice-rocks drifted southernwards. The aristocracy of England now vindicate superiority by labour—industry—talent: they are seen in the workshop, the warehouse, and the counting-office as frequently in their ratio as any other portion of the population; and, if we wanted a telling instance of ridiculous plebeianism, we should select the shabby-genteel "pure," with his whole estate, his brass plate, on another man's door, looking down with complacent contempt on his comfortable neighbour supplying his own medicines a few houses off!

"Virtue and worth from no condition rise;  
Act well your part—there all the honour lies!"

But we are told that open surgeries lower pro-



professional character. Why should they? Why, if a man have an honest calling, shall he not exercise it honestly according as his own wants or the needs of his neighbourhood suggest? On what pretence, if he be a pharmacien, and if he be a medical man, shall he not carry out both avocations, if circumstances impose it upon him as a matter of self-interest and self-defence? We respectfully ask for a reason. "Specialties" are all very useful; the tendency of society is to increase and diffuse them; we do not and ought not to interfere with that tendency. But when, from local or other circumstances, the tendency takes the opposite direction, why interfere then? As the public want requires, suggests, and repays the one, why may it not the other? Where is the harm of the man being allowed (in this case) to do what he likes with his own? What would be the benefit of a state's interference? We profess with earnestness we cannot see any.

True, we want "specialties"—true, we want eminent surgeons—true, we want eminent physicians; and true again, we want men (as aurists, oculists, stethoscopists, and amputators) eminent in the various subdivisions of these two larger divisions; but in what way will the permission of all medical men to practise in any manner they may be competent interfere with the existence or the increase of these "specialties"? The whole basis of all eminence is early extensive practice, and this early extensive practice can come but through a ready and cheap access to the poor. Let the mass of our profession be as well educated as you please, but Heaven spare us and society the calamity of seeing them in excess genteel. To be over-respectable or over-high-priced is, in other words, to repel from us the medical practice of the empire. We but force patients to dispensaries for charity, or to empirics for mutilation. Our young practitioners, above all others, are entreated to bear this in mind. Could they but see the shipwrecks that have originated in the silly, inflated respectability and heavy fees of many of their young contemporaries!

It is, then, by securing and keeping extensive practice that professional skill is to be acquired and maintained by us as an aggregate body; and it is easy to see that, as experience wins skill and skill success, the practitioner, adapting himself to his fortunes, will assume that kind of practice and position better suited to his changed circumstances, and more favourable to his worldly interests. In this way it is that true eminence is naturally and best attained, and that "specialties" become, instead of an individual speculation, a natural progression—a social boon instead of a social imposture. The present system of making "eminent" pure surgeons and physicians entitled to ask heavy fees and obtain responsible appointments—not on the score of what they have seen, but what they have read—is pregnant with danger to the public, and fatal to the interests of talent in the profession. It is an artificial mode of hatching eminence, and the product in ninety-nine cases in the hundred will be a wretched weakling, unfitted to weather the blast of one serious responsibility!

"Nunc est bibendum—nunc pede libero  
Pulsanda tellus."—HORACE.

REALLY the activity—we should rather say the *irritability*—of a certain number of our metropolitan brethren is wonderful. There is no explaining, we fear, in any favourable hypothesis, the extreme activity they exhibit in doing always something—something, no matter how small—in a semi-kind of public way. Now Dr. A. (say Dr. Henry Bennett) has an important notice, or warning, for the public through the *Times*. Now Dr. B. invites the public, through the more costly and enterprising medium of a five-shilling advertisement in the same journal, to meet him, the said Dr. B., to consult for the hygienic safety of the same public. Then we have Mr. C. and Dr. D. holding forth weekly at some countless societies—Harveian, Hunterian, Linnæan, Statistical, Botanical, Medico-Botanical, Medical, London Medical, Westminster Medical, Western Medical, Medico-Chirurgical, and some half-hundred others, including a trip now and then to the British Association—and all again for the good of the same public (who, however, wonderful to say, derive no good), and of a Science wonderfully unconcerned of how much is being done for her. The writing, the talking, the attendance of these active gentlemen, would imply a thorough conviction of the Hippocratic axiom, "*Ars longa—VITA BREVIS.*" In their anxiety to publish what they *know*, they must have a hundred channels of communication with the public, to make up for the *unfortunate* want of as many voices; and how with this mania of publicity—this unflagging activity of public benefactorship—they contrive to eat, drink, dress, mind their hospitals, look after their dispensaries, and attend their numerous private patients—from whom they derive the *extensive* and priceless experience they are so anxious to divulge—is one of those mysteries for an explanation of which we must—as in the case of Cæsar, Bonaparte, Cuvier, or the novelist Dumas—wait till the publication of their interesting autobiographies. Paracelsus, with all his spasmodic activity, fares ill on a comparison with his modern imitators! Such a sacrifice for the public "*advantage*" of domestic joys—supposing them to have any—beats Curtius, or Brutus, or Joseph Ady "all to sticks!"

The latest specimen of this excessive professional or extra-professional action—the last indication of this morbid irritability of our young professional friends—is the donation to science during the last week, of that much-required boon—another Scientific Medical Society. Greatly are we indebted to their public spirit and individual bounty. How the metropolis managed to get on without "The Pathological Society"—now just invented—is what we no more understand than its little learned President, Dr. C. J. B. (we believe we have given all the initials) Williams. The cakes—liberally supplied in moiety, we are confidently assured, by the deity presiding over their demolition—did credit to *his* taste, and gave pleasure, we were glad to notice, to that of others. The coffee was worthy of Olympian feasts; and there was a beaming self-complacency in the chairman—

conscious, we suppose, of a good act—that reciprocated the benevolent satisfaction of the scientific philanthropists who so energetically devoted their immortal minds to the discussion, in turns, of modern pathology and presidential bounty.

Of the two qualities our experience of the matter leads us to a preference of the latter. Dr. O. (we spare the gentleman's name) gave us a ruptured "uterus"—of whose "rupture" and explanation we take the liberty to doubt. Mr. Liston gave, clearly and minutely, the details of a case of stricture of the œsophagus of very long standing; and the President, to compliment him on the perfection of his statement, courteously inquired "what was the kind of stricture," and "was it malignant?" The modest surgeon, overpowered with the honour, and apparently surprised at his colleague's questions, growled out two of his curtest (if not the most courteous) rejoinders. We had then the satisfaction of hearing Mr. P. record an elaborate case of "fracture of the neck of the thighbone." After listening with patience to the detail of this important contribution to improved science, it was, as the writers say, "refreshing" to observe Mr. Liston rising to the invitation of the author, and express his opinion "in two words"—"*It's no fracture at all!*" This announcement seemed news to the President and some of his *surgical* assistants; whereupon the "Ursa Major" of these smaller constellations resumed:—"It's a common case of interstitial absorption consequent on a blow on the trochanter. I've got fifty such preparations."

Dr. Williams was gratified to hear that there was thus a liberal reserve for future evenings of equal novelty in the way of pathological specimens; and after hearing some details from Dr. Quain, of Gower-street, on "rupture of the heart," the audience took the President's signal, and betook themselves to (apparently) the not less agreeable duties of despatching the collation before them. Our faithful chronicler writes—"We are aware of nothing wiser—they did that evening."

## MEDICAL REFORM.

### LETTERS

TO THE MEMBERS OF

THE PROVINCIAL MEDICAL AND  
SURGICAL ASSOCIATION.

BY A GENERAL PRACTITIONER.

### LETTER I.

GENTLEMEN,—You have often asked yourselves of what *use* is the Provincial Association? In other words, *cui bono*?—to whom, save the Worcester duumvirate—Hastings and Streeten—is it a profit? The question has been warmly debated, even in your own journal. The misgiving which is "father to the thought" would be damning evidence against an Association even younger and better constituted than the Provincial. There are the truth and wisdom of an instinct in the question. It is the voice of Common Sense rebuking Custom; Experience half-unconsciously giving one of her infallible condemnations. As might be expected, some doughty councillor has occasionally inducted himself in the panoply of battle,



and endeavoured to cover what he could not defend. Admiring the chivalrous intrepidity, I have been constrained to lament the fatal issue. The temerity of the apologist, instead of sustaining the Association, has only weakened some support hitherto unassailed; and, in place of concealing defects, has only exposed them more glaringly. How could it be otherwise? For associations descended to a job there is no tonic in baseless panegyric: the stench of decay is not to be sweetened by the fragrance of rhetoric. As long as such a *fumes* of effluvia stands beneath the nose, an ocean of editorial eau de Cologne would be but an ocean thrown away!

The Provincial Association has been for years past an ill-constructed house, standing on a quagmire—a fabric ever in peril of a subsidence—a subject of incessant anxiety and apprehension to its owners. Each anniversary that passes over it must send a shudder through the frame of its usufructuary landlords—Hastings and Streeten. They know better than even I how subject it is to a periodicity of insecurity. The Association, never much, is now worse than that: its vitality has now wholly fled, and the annual visitant is at the best but a galvanised corpse. Each anniversary is in reality but a renewed wake. There is much pomp and ceremony: a homily is read, a requiem is sung, the “funeral baked meats” consumed, a fresh slab in the shape of a cold volume to its memory has been erected, and then a long farewell to all its greatness! The spectacle—a year’s history—escapes derision solely by exciting melancholy. But duty asks more vigorous notice: the sigh of pity given, there yet remains something for science: to dissect the exanimate and decomposing mass before us will be a service both to the profession and humanity.

In submitting to you, gentlemen, this dissection, I am aware that I shall have many cherished prejudices to encounter; but I pledge myself to do violence to no man’s judgment: my aim is to state the case with no more partisanship than that given by a steady anxiety for the well-being of the whole profession. I will place before you, with the truth of history, the necessities of the profession, the powers, the opportunities, and conduct of the Provincial Association; and then—reminding you of the duties required from its members in the present trying campaign against corporate injustice, and the obligations imposed on you by success in your professional career—I will leave the matter to your own enlightened decision. If my name could carry weight in the evidence, it should be subscribed; but to sensible men, arguments and facts (my only instruments) acquire little potency from a name, even were it as well known to science as that of a Streeten, or to professional amelioration as that of a Hastings.

The constitution of the Association first arrests attention. It is composed of *all* classes of medical men—perhaps wisely, but *that* we shall see to afterwards. Does the governing body, then, duly represent the members of the Association? Does it faithfully mirror these “different classes”? Just the contrary. There is no greater anomaly in the whole range of medical societies. *The vast majority of the MEMBERS are general practitioners; yet, and mark this, four-fifths—actually four-fifths—of the Council are SCOTCH PHYSICIANS and FELLOWS OF THE LONDON COLLEGE OF SURGEONS!* Your *natural enemies* are your *self-elected rulers!* *The sheep have elected the wolves as their shepherds.*

Conceive, if you can, a more ridiculous position!

You, the general practitioners, want reform: you complain of the physicians in one set of colleges—you complain of the surgeons in another: encroachments—infringements—aggressions—outrages crowd on you from both sides: you are alarmed, and you seek combination: you wish improvements, and you labour to form an Association: you communicate—you meet—you unite—you pay money—you form a vast confederation—and what do you?—*you put yourselves under a junta of PHYSICIANS and “PURES!”*

Gentlemen, with such facts before you, for whom, suffer me to ask, were written those lessons of policy for the *infancy* of nations—“Æsop’s Fables”? For whom was it we were told of the clever sheep choosing wolves for their shepherds? For whom of the eleemosynary crane burying its neck in the wolf’s throat? Alas! that there is so palpable an instance to indicate the *want* of such elementary teaching to the general practitioners of England!

The monstrous incoherency of this passage in medico-political history has worked just as might have been expected. It has formed the rottenness at the core of the Association. The massacre of the interests of the general practitioners is carried on in detail just as far and as publicly as it is safe; no further. The *number* of the victims is the check on the *open incapacity* of the rulers; and in this balance of wolfish appetite and wolfish prudence we have revealed the whole secret of the past history of the Association. This it is that has cramped its powers, enervated its political energies, betrayed it into a timid and shuffling declaration of principles, sealed its lips when it should cry out, and made it at all times the insincere friend and secret enemy. It fears to advance, and dares not retire; it therefore stands still. It *will* not be the advocate of justice, and *must* not be the friend of wrong; it is, therefore, hypocritical, timeserving, and, in a *public* sense, worthless. That this is the plain truth, proveable by undeniable evidence, let us look at *the acts of the Council itself.*

The originators of the Association, as everybody knows, were a few Scotch physicians *ILLEGALLY* practising medicine in this country. Take this fact with you, for it is the key to the whole policy of the Association. Many of the members of the Council have no legal right to practise in England—they are interlopers on our domains; they are in the daily practice of wrong and misdemeanours. The question is not whether the fact of their practice should not be recognised by law, but simply that they are *not* so recognised, and that they have neither a legal nor a moral right to occupy the ground allotted to men who have complied with all the existing regulations that determine the privileges of medical practice. These men have entered the house like a thief in the night, not by the door, but over the wall; not content with that, they seek to expel the original proprietor. Conscious of the illegal situation in which they have wilfully placed themselves, they very discreetly labour to create a public feeling in their favour, and the Provincial Association is the organization craftily employed for this purpose. Such are nearly one half your leaders, general practitioners of England!

Now, gentlemen, look at the other half of the members of the Council. What are they? Do they atone for the other half? Oh yes—for they are FELLOWS of the COLLEGE of SURGEONS! What *can* you, what *do* you, expect from them? What sort of political grapes

are you to gather of such thistles? Are they not the barriers between yourselves and a reform of the College? Are they not, also, the peculiar enemies to the elevation of your order? The Council of the College of Surgeons, whom they represent, begot, nurtured, and fosters them, to be strengthened by them in their aggressions on you. They are Lawrence’s and Brodie’s “Swiss-guards”! They exist and are honoured for *your* degradation! With the pseudo-prestige of being a popular electoral body, they are organized and petted to back Council tyranny. How got they the “honour” of fellowship except by doing you cruel injustice? It was an adventitious, unearned credit, purchased at your injury and at your cost. Each hour you are paying its price; your whole order is suffering by it. Was their gain an injustice? If not, why such loud and general complaint—and from you? If it were an injustice—and it was worse—a pillage, a plunder, and a robbery—how could they *honestly receive* what they knew did not belong either to them or to the professed donors? And if they could not, how happens it that you consent to be at *their* beck and call—the beck and call of those very Fellows—in associated subserviency and humbleness? The “Fellows” are your enemies—your willing enemies, your *paid* enemies, your *dishonest* enemies—and you know it. They are (under the title of Fellows) the spiritless and dishonourable understrappers to an authority they know to be unjust, *cruelly* unjust, to you; and they consent and rejoice to be *officially* so badged, and to be leagued in hostility to you, because it is matter of emolument to them!

Who were the first to step forward to discomfit you and vindicate the Council during the late contest with the injured members? You know they were “Fellows.” It is matter of history. And of such men are composed your self-elected rulers—the governing body of the Provincial Association! Are you *sane*?

And here let me remind you that these “fellowships” are the *one*, and the all but insurmountable, obstacle to the reform of the College of Surgeons. Every hour is consolidating them and strengthening the Government policy of considering them a “vested interest”! And what is a “vested interest”? We can understand the vested interests of a guild or commercial society: the prosperity of a town, or of a particular trade, may depend upon the integrity of a particular combination under a special constitution and laws. The privilege of membership may have been purchased, and all be partakers in due proportions of its benefits. Here is a vested interest. Suppose the Government desired to abolish such a society, the members might justly protest against this aggression, and plead their vested interests. Suppose again, on the other hand, the members petitioned the Government to abolish the institution, would it not be the most dishonest sophistry if half a dozen influential office-bearers, or malcontents, were to organize an opposition, and clamour about the vested interests of the guild? Why, it is the vested interests of the guild that implore the change. Connect this argument with the conduct of the Council of the College of Surgeons. The members, almost to a man, have besought the Crown to abrogate their charter, to restore to them “the vested interests” lost to them by the recent innovation: their “vested interests” require the change doubly. The Council retaliate the argument—their “vested interests” are opposed to any such alteration! Here the College are



divided—the members against the Council—10,000 men against 24! It is, therefore, disgracefully true that it is the “vested interests” of the Council alone that are sought to be maintained—in other words, *the greedy, exclusive self-aggrandizement of the governing body!*

This is a gross and palpable imposture—a most dishonest use of a term which has no application to the case at issue; yet it has deceived statesmen and negotiators, hoodwinked the indignant members, successfully veiled the artifices of a corrupt Council, muzzled the antagonism of political warfare, and raised a huge barrier against the progress of right principle and retributive justice. The vested interests of the College of Surgeons, as in opposition to the majority of the members, is a **CORPORATE LIE!** It has no existence in fact or law, and only required examination to be blown to the winds. Yet the “vested interest” gentlemen—those who have every motive that love of emolument and of social distinction can suggest to destroy yours—are the men chosen by you to rule the destinies of the Provincial Association! Are you, general practitioners, to be content as you are? Are you to be satisfied with playing into the hands of those who laugh in their sleeves at the adroitness with which they use you for their purposes? Can you fancy a worse plight than that you voluntarily assume? As general practitioners, you have no voice in the Council: you are outvoted, silenced, and crushed by the dubs and pures; and there is no chance of any liberal measure receiving support that is not approved of by the oligarchical majority. There is no representation of your interests. Can injured innocence expect an echo from unprincipled selfishness? Can the wronged have sympathy from rapacious oppression?

The forbearance which certain individuals may show towards this mischief-working society is very similar to that with which an antiquary regards an old ruin—not for its strength, accommodation, and utility, but simply because it is a ruin—a memento of the past, and a curiosity of the present. It may not have one useful attribute, and all the reminiscences associated with it may be those of folly, or worse: nay, its present situation may be an obstacle in the way of some valuable improvement; yet he hugs this idol, and mourns to see one stone toppled from its brow.

But medical men are eminently practical—they know the value of well-directed labours; and when a scheme has outlived its strength, they are not to be seduced into a passive support of its tottering caducity. I have had many opportunities of witnessing the business-like instinct of medical men: they are not superfluously rich, they work hard for every sixpence they get, they are cautious in their outlay, and eager for the fruits which such outlay should produce; but, on the other hand, they are not irrational, suspicious, or impatient—they can wait as willing handmaids on Time; but I apprehend that fifteen years of barrenness, stagnation, and disappointment may, reasonably enough, awaken their indignation at such an unprofitable squandering of their periodical contributions.

I have the honour to be, Gentlemen,

Yours, very faithfully,

VOX VERITATIS.

**CRITICAL OPINIONS ON LONDON HOSPITALS.**—Mr. Liston, being told a short time back that one of his old patients had lately been attending, for advice, the Middlesex Hospital, apostrophized the unfortunate man in this fashion—“What the d— did you go there for? You’ll go to the Gray’s Inn-road next!”

## PATHOLOGICAL SOCIETY OF LONDON.

The first meeting of the Pathological Society was held at the Society’s rooms, in Regent-street, on Tuesday evening, October 13; the President, Dr. C. J. B. Williams, in the chair. After an eloquent introductory address from the President, in which he pointed out the value of pathological knowledge, and mentioned the inducements which had led to the formation of the Society, the business of the evening was proceeded with.—Dr. Oldham presented a preparation of the uterus taken from a case in which the foetus was contained in an extra uterine cyst.—Mr. Liston presented a remarkable specimen of stricture of the œsophagus. The disease commenced early in life, and the patient had lived to a very advanced age.—Mr. Peacock presented a preparation of the head and neck of the thighbone, taken from a patient who died about eleven months after a fall on the trochanter. The preparation was a good specimen of interstitial absorption.—Dr. Richard Quain, formerly resident physician at University College Hospital, presented a preparation of ruptured heart, and read a paper on some curious examples of lesion of the heart, occurring during violent muscular exertion.—The meeting then adjourned. Abstracts of the cases will be published in our next number.

## ILLIBERALITY AT ST. GEORGE’S HOSPITAL

We have received a statement from Mr. Pettigrew, one of the lecturers at the School of Medicine adjoining St. George’s Hospital, to the effect that the lecturers at that school, having decided on proposing for competition among all the students of St. George’s Hospital, which their students attended, a prize for the best hospital reports, and having drawn up and caused to be printed, rules to regulate such competition, applied to the gentlemen composing the Board of Governors of the hospital for permission to suspend a copy of the regulations in the hall of that institution. At a meeting of the Board, Mr. Pettigrew’s letter was read, and Mr. Hawkins proposed a resolution to the effect that the request should not be complied with, asserting that the lecturers at the hospital had themselves proposed a prize of the same nature.

Mr. Warder then said, that the prize proposed by the lecturers at the hospital had been only offered to the competition of matriculated pupils, and that, as it was known that a large number of the students did not matriculate, his colleagues and himself considering clinical medicine a most important branch of medical education, and being anxious to encourage the attention of pupils in that particular branch of study, had instituted these prizes for all the students; and also, wishing the competition should be as large as possible, had made the present application. Personally, it was a matter of indifference whether it were complied with or not, their desire being to give information to the students, that none might be excluded from the competition. If Mr. Hawkins’s motion was seconded, he would move an amendment.

Mr. Cutler seconded Mr. Hawkins’s motion; and Mr. Warder then moved as an amendment, “That the request contained in the letter be complied with.”

Mr. Morley rose to second the amendment, but gave way to Dr. Wilson, who said that he had come in accidentally at that time, and heard the proposal which had been made. He was not in any way connected with any school whatever. It appeared the prizes offered were for all the students, irrespective of all other lectures, and a boon to the entire body of pupils of the hospital; he felt he should be wanting in his duty as senior physician, if he did not come forward to support the proposition. He should therefore second the amendment.

Mr. Charles Hawkins considered, that as the management of the school was left to the school

committee, this might properly be left to them, and, if the present amendment were lost, he would propose as another amendment—“That the letter be referred to the school committee.”

After some further observations from Mr. Morley, Mr. Powell, and Mr. Hawkins, the Chairman put the question, when there appeared—for the amendment, 4; against, 7.

Mr. Charles Hawkins then proposed his amendment, which Mr. Warder seconded.

Mr. Hawkins doubted the expediency of the course proposed by Mr. Charles Hawkins. He thought it would give rise to correspondence, and any correspondence on such a subject must be unpleasant. He thought the best plan would be to drop the subject altogether.

Mr. Warder objected, that as an amendment had been put and lost, and the original motion was now on the minutes, it must be disposed of.

After some irregular conversation on points of form, Mr. Charles Hawkins withdrew his amendment, and the Chairman put the original motion, when there appeared—for, 4; against, 2.

On this subject we have received the following letter, which appears only to make matters worse. How a member of any board of governors could, without full inquiry, deliberately make an attack on a gentleman, and that gentleman, too, a professional brother, on account of what appears probably, indeed most probably, a simple mistake, we are at a loss to conceive; the case with which “lectures at the school adjoining St. George’s Hospital” may be confounded with “lectures at St. George’s Hospital School” is sufficiently apparent.

ST. GEORGE’S HOSPITAL AND MR. PETTIGREW.

SIR,—Observing in the last *Medical Times* a notice that a communication from Mr. Pettigrew, about the conduct of the Board of St. George’s Hospital, would appear in your next, I take the liberty of giving the reasons which influenced the minds of most of those present to reject the application with which Mr. Pettigrew’s name was associated. There had been laid before them on the same day on which the application was made, an advertisement, in which that gentleman was described as “lecturer on anatomy at St. George’s Hospital.”

The advertisement proceeded from the Chelsea Mechanics’ Institute, and on the secretary of that institution being informed by an official communication from the Board of Governors, that no such person had ever lectured at St. George’s Hospital, he instantly withdrew the advertisement, and in an after reprint described Mr. Pettigrew differently. I think it must be acknowledged that wisdom was shown in avoiding all possible connection with him, after he allowed himself to be decked with an honour he does not possess. I am, Sir, your obedient servant,

ONE OF THE BOARD OF GOVERNORS.

## THE PRESIDENCY OF THE ROYAL SOCIETY.

[To the Editor of the Morning Chronicle.]

SIR,—My attention having been directed to an article in the *Lancet*, full of mistakes and misstatements, I take the opportunity afforded me by your columns—if you will give me leave so to do—to contradict the report that I have resigned the office of President of the Royal Society.

It is neither necessary nor right for me to enter upon the other assertions contained in this paragraph; but the well-known fact that I have long been anxious that the anniversary of the Royal Society should be held at a more convenient time than the 30th of November, my observations on that subject in my last year’s address to the society, and the introduction of discussion on papers, and of other changes during my presidency, and with my entire concurrence, will show to the readers of the article in question how much accuracy they may expect in its other statements.

I am, Sir, your humble servant,

Peterborough, Oct. 13. NORTHAMPTON.  
—*Morning Chronicle.*



## MISCELLANEOUS CORRESPONDENCE.

## CAUSES OF PHTHISIS.

[To the Editor of the Medical Times.]

SIR,—Since my arrival in this island I have read a paragraph in the "Monthly Journal of Medical Science," in which it is observed, as a "new cause of phthisis pulmonalis," that a M. Wanner, of Salhin, has addressed a note to the Academy of Sciences, ascribing as the cause of pulmonary phthisis the presence of mineral matters deposited in the lungs. In continuation he states, "that he had heard that in Solognia there were no phthisical patients, and on visiting that country he found the statement correct. There are no phthisical or scrofulous persons, nor children affected with atrophica mesenterica, excepting in one part of the district only; and he attributes the absence of these affections to a want of lime—a mineral not met with in that country under any form." (*Gazette Medicale*, 4th July, 1846.) The identity of these assertions with the opinions contained in my communications to your valuable periodical, and which opinions I distinctly published now nearly two years ago, will, I have no doubt, strike those of your readers who did me the honour to read my papers; and if there be any merit due to priority, you will, Sir, I am sure, assert my claim. The more I reflect on the proximate cause of consumption—and, unfortunately, in my own person I have abundant reason for reflection—the more satisfied I am that it owes its origin to the conversion of a soluble salt circulating in the blood into an insoluble salt deposited in the affected organ; and now that the subject has attracted the attention of a foreign physician, I have no doubt that it will lead to that investigation from British practitioners which views originated by a countryman ever fail to excite at first.

I am, Sir, your obedient servant,

J. H. TOSSWILL.

Funchal, Madeira, Sept. 4.

## PRIVATE SCHOOLS.

[To the Editor of the Medical Times.]

"But I'll not chide thee.

Let shame come when it will, I do not call it."

SHAKSPEARE.

SIR,—In your much-respected and valuable journal of the 10th instant there appears a letter from "Veritatem Peto," defending the private medical schools from the late ungrateful attacks made against them in the *Lancet* and *Gazette*, and asserting that they have excellencies peculiar to themselves, which is all that can be said of large schools. But your correspondent should have informed those bigoted writers, "that the students of the private schools," and not, as he is pleased to style them, "the small schools," are young men who work hard to gain a knowledge of their profession, and who are the most persevering class of students in London. True, they are not fit to be classed with the idlers who dress and walk about the neighbourhood of Gower-street, whose pleasures consist in the pipe and pot of half-and-half. These are facts your contemporaries are well aware of, if they had but the honesty to acknowledge them. But since the sons of one have got into favour at a particular school, and because one man chooses to charge his weekly journal with abuse against a talented professor of a private school—in his own words, "to ruin a professional man"—he attacks all the private schools.

I would ask your contemporaries, where are those long articles which appeared week after week in the pages of their now almost defunct journals in favour of private schools—are they now forgotten? I would ask your contemporaries, how often, in the years 1843, 1844, and 1845, did letters appear in the *Times* and other London papers, respecting the GENTS of Gower-street—one of the now-styled large schools?

I would tell your narrow-minded contempora-

ries, that the difference that exists between the private schools and the hospital schools (the now-styled large schools) is this—at the former, gentlemen enter to study; at the latter, young men enter to become gents.

I trust and hope, with your correspondent, that the day may never arrive, when private schools are to be put aside. Then, I say—Good-bye, industrious students.

I fear I have trespassed too much on your time, but grant me a little more to remark on the conduct of the professors of the School of Medicine adjoining St. George's Hospital. The professors of this school take the greatest interest in the education of those gentlemen under their charge; their anxious wishes to please and assist every student as much as possible in his professional studies, with the liberal manner in which they have announced their prizes this session for clinical reports, must ever cause them to be remembered with gratitude by the students. As a student of the school, I am sure I would be doing them an injustice did I allow your correspondent's letter to pass without adding these few remarks on the benefits to be derived from a private school; and I feel assured that each and every one of my fellow-students will bear me out in what I have said.

Your obedient servant,

A STUDENT AT THE SCHOOL ADJOINING  
ST. GEORGE'S HOSPITAL.

## GOSSIP OF THE WEEK.

APOTHECARIES' HALL.—Gentlemen admitted members, Oct. 15: Joseph Seymour Mitford, Roben Shackleford Cross, and James Kelly.

WAR-OFFICE, Oct. 20.—8th Light Dragoons—Assistant-Surgeon Henry Summers, M.D., from 73rd Foot, to be Assistant-Surgeon, vice Blake, promoted on the Staff. 73rd Foot—John Foster, Gent., to be Assistant-Surgeon, vice Summers, appointed to the 8th Light Dragoons.

HOSPITAL STAFF.—Assistant-Surgeon Isidore Anthony Blake, M.B., from the 8th Light Dragoons, to be Staff-Surgeon of the Second Class, vice Peter Daly Murray, who retires upon half-pay. Assistant-Surgeon Richard Humphrys Garret, M.D., from the 49th Foot, to be Staff-Surgeon of the Second Class.

NAVAL APPOINTMENTS.—A. Clark, Acting Assistant-Surgeon, to Haslar Hospital; John Findlay, Surgeon, to the Ferret; Gilbert T. M. Martin, Surgeon, to the Wanderer; Charles F. Y. Kevern, Surgeon, to the Bittern; Alexander Mitchell, Assistant-Surgeon, to the Devastation; George A. Allion, Assistant-Surgeon, to the Devastation; John Duff Macdonald, Assistant-Surgeon, to the Thetis; Alexander Lane, Surgeon, to the Penelope; William P. Ward, Acting Assistant-Surgeon, to the Penelope; Chas. Forbes, Assistant-Surgeon, to the Belvidera; Andrew Coates, Assistant-Surgeon to the Andromache.

PROFESSOR SCHONBEIN'S GUN-COTTON.—Letters from Frankfort announce that the German Diet has passed a resolution that 100,000 florins are to be awarded as a national testimonial to the Professor, if experiments to be conducted at Mainz, under the direction of the Standing Military Committee of the Confederation, shall establish the properties and advantages claimed for cotton over gunpowder. We are informed, also, that the interests of the inventor have, some time since, been secured by a patent for this kingdom and its colonies.

Professor Schonbein's grand secret is a secret longer. Chemists in all parts have simultaneously discovered the composition of the patented gun-cotton of the talented Professor. The mode of preparation consists in steeping cotton for a few minutes in strong nitric acid, to which a small quantity of sulphuric acid has been added. We understand that a distinguished London surgeon, of operating celebrity, rises every morning at four, instead of his usual early hour of five, to amuse himself by firing at a candle with a pea rifle charged with the new agent!

The Marquis of Northampton has written to the public journals, to state that an article in the "Lancet" on the Royal Society "is full of mistakes and misstatements." If the noble Marquis knew a little of our profession he would not have thought this proceeding necessary.

We have recently seen, in the "Provincial Medical and Surgical Journal," an interesting passage of professional life, furnished us by one little likely, *a priori*, to have afforded it. Mr. Jonathan Toogood, who, by numerous contributions, has made himself favourably known to us as a surgeon to a Somerset hospital, has recently merged his chirurgical craft in the higher honour of a physician's life; more recently we have the logical sequence of his removal to Torquay, there appropriately to exercise his new functions; and still more recently, we have the natural corollary of a publication, in a contemporary, of Dr. Toogood's views of a "disease of so unmerciful a character as tubercular phthisis,"—a disease which he further takes the trouble to inform us is "so common and so generally fatal," "baffling the skill and researches of the most eminent physicians." Let us hope that the extent of Dr. Toogood's practice will show the *locale* for his specialty well chosen, and that he and his Torquay patients will be mutually benefited.

Formerly, milliners only went to Paris to learn the fashions—at present the French dentists do the same. "M. —, surgeon-dentist, has the honour of informing those of his patients who may wish to consult him before his leaving for Paris, that he will make his annual visit to that capital, to ascertain professional improvements, on the 25th of the present month."

The French journals state that it is impossible to conceive anything more frightful than the state of the sick in Algeria. The hospitals are so full at Algiers that the sick are daily sent away by dozens to die of fever and other severe diseases. The courts and galleries of the hospitals are filled, and, notwithstanding the utmost care on the part of the medical officers, the sick die in numbers daily, in consequence of insufficient attendance. At Bona, Constantine, and Oran, there are no hospitals of any kind.

## MORTALITY TABLE.

For the Week ending Saturday, Oct. 17, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES .....	821	1000	968
SPECIFIED CAUSES...	817	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases .....	166	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat .....	91	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses .....	130	151	157
Diseases of the Lungs, and of the other Organs of Respiration .....	230	313	294
Diseases of the Heart and Blood-vessels .....	40	29	27
Diseases of the Stomach, Liver, and other organs of Digestion .....	82	70	72
Diseases of the Kidneys, &c.	7	8	7
Childbirth, Diseases of the Uterus, &c.	10	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	4	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	1	2	2
Old Age .....	33	66	67
Violence, Privation, Cold, and Intemperance .....	23	27	26



No. 370. SUMMARY. Oct. 31.

PROGRESS OF MEDICAL SCIENCE, INCLUDING  
CHEMISTRY AND PHARMACY—

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PROGRESS OF MEDICAL SCIENCE,  
INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

The meeting of October 19th was occupied with topics foreign to medical science.

## ACADEMY OF MEDICINE.

Meeting of Oct. 20; M. ROCHE in the Chair.

THE PLAGUE.—M. Mélier, in the absence of the reporter, defended the conclusions of the commission against the arguments of M. Dubois and M. Gaultier de Claubry. His remarks were received with favour by the Academy, but the vote was deferred; and, after a very personal debate between M. Poiseuille and M. Dubois, the meeting adjourned at five.

## THE SPAS OF THE RHINE.

BY PROFESSOR TROUSSEAU AND DR. LASEGNE.  
(SCROFULA—Section 10.)

Kreutznach enjoys in Germany a well-merited reputation for the treatment of scrofulous diseases, and a vast number of facts plead in its favour. Kreutznach has not been chosen on account of its geographical situation, or on account of the composition of its waters, which present the greatest analogy with those of Hombourg and Kissingen; but near Kreutznach exist immense saltpits whence salt is extracted in large quantities, and the residue of the operations, called in the country *mutter-läuge* or mother-waters, is really the instrument of the cure or improvement observed in cases of scrofulous disease.

The *mutter-läuge* of Kreutznach are of a dark brown colour, and of the consistency of syrup. Their odour recalls that of seaweed, and their taste is of a special bitterness which can with difficulty be tolerated: they contain, as we have already shown in a former chapter, bromine in large quantities, and chloride of calcium, which is their chief element.

The *mutter-läuge* must not be considered to consist merely of the natural source simply deprived of muriate of soda: carbonates of lime and magnesia, alum, salts of iron, and silex are almost entirely removed by evaporation in the open air on fascines. When submitted to the action of heat the waters contain, therefore, chlorides, bromides, and iodine in a free and combined state. Nauheim presents the same advantages as Kreutznach, and waters of the same composition.

The medicinal waters of Kreutznach are consequently artificial, and owe their curative effects only to their modified composition; we may therefore expect to find them as efficacious when exported as they are on the spot. At Hombourg we have seen the waters of Nauheim produce the same therapeutic effects as in that city, although it must be remarked that the great expense attending their exportation causes the Hombourg physicians to prescribe them in much smaller quantities than at Nauheim itself. Thus 100 litres of *mutter-läuge* have been ordered in one bath at Kreutznach, and

50 at Hombourg would appear an exaggerated quantity.

All scrofulous patients are sent to Kreutznach. We will rapidly examine the results of the treatment under the three following circumstances:—1st. When strumous symptoms have already appeared. 2nd. When the general signs of a scrofulous predisposition have alone been observed: and 3rd. When, in a complex disease, scrofulous elements are found to have intervened.

The existence of a strumous predisposition before any symptoms have rendered it manifest is not always easy to detect, and, consequently, the prophylactic effects of the treatment may be contested. Many children are subject to cutaneous eruptions which are not in the least connected with a scrofulous diathesis, but with a suppurative tendency of the system. Acute diseases in such children are to be dreaded: pneumonia and chronic diarrhoea, with remitting fever, for instance. Their mucous membranes become readily affected after the skin; and with the possibility of such accidents it would be imprudent, to say the least, to have recourse to so energetic a medicine as the *mutter-läuge*, or to risk the establishment of fever, against which, ere long, it may be necessary to direct every effort.

Other children, on the contrary, endowed with the appearances of perfect health, are occasionally affected with swellings of the lymphatic glands, which become, from several successive inflammations, larger and more indurated, although the general condition of the system seems to remain free from disease. In such instances, the Kreutznach baths are of the most decided benefit: local lesions yield, and relapses are prevented. These fortunate cases may permit us to establish the general rules by which the practitioner should be guided in the exhibition of the *mutter-läuge*. Whenever the alterations of the skin, mucous membranes, or glands, appear in a chronic form, where their progress is interrupted by irregular intervals, the mother-waters of Nauheim, Kreutznach, &c., may be safely recommended. These symptoms may or may not be the forerunners of scrofula; but in both suppositions the patients derive marked advantage from the treatment. The critical eruptions do not fail to appear after a few baths; the digestive functions acquire more activity, and often subacute symptoms usher in the cure. When patients seem to be merely predisposed to strumous disease—a circumstance which may be inferred from the bloated countenance and the oedematous-looking upper lip, nose, and eyelids—an appearance which is usually both partial and intermittent—the Kreutznach spa often improves their condition. The favourable chances are, on the contrary, less numerous when the skin is dry and earthy, and when the cellular system is not fully developed.

In confirmed scrofula, the baths with the *mutter-läuge* are certainly the most efficient of all our methods of treatment, and particularly in the alterations of mucous membranes, such as ophthalmia, coryza, and ozæna. Cutaneous eruptions

are not cured with the same readiness; and least of all, abscesses, white swellings, and caries. It is probably not in the topical action of the waters that their effect can be explained, but by their general action on the system. Thus in many children, who refuse to wash their sore eyes with the waters, bathing the body nevertheless produces a cure. We cannot possibly take into serious account those cases of success in which “fumigations” with the vapour of the *mutter-läuge* have been prescribed, because it is self-evident that the saline elements, not being volatile, never come into contact with the diseased parts. On the other hand, when the good effects of the treatment are delayed beyond a few weeks, it is customary to employ the waters locally—in *natura*, or in the shape of ointments in which the dry mineral elements are incorporated.

Let us now say a few words of scrofula in combination with other maladies. In some forms of consumption, authors have endeavoured to find characters belonging to scrofula, and have argued from the slowness of the disease, the lax condition of the constitution, the circumstance of the agglomeration of tubercular matter, and the coexistence of white swellings or scars, the strumous nature of the thoracic alteration. We cannot think the distinction justified, nor do we consider it practically useful. Employed in pulmonary consumption, saline muriatic waters, so useful to scrofulous patients, become positively injurious, and are proscribed by all physicians. Most German pathologists admit the existence of a scrofulous form of chlorosis, gout, and rheumatism—types which we do not find any reason to admit. These distinctions are, however, the cause of many patients being sent to Kreutznach to whom the waters cannot be beneficial, and by whose cases the efficacy of the spa must not be judged. Besides, these physicians tacitly acknowledge the impotency of their means of action: thus, in rheumatism they prescribe vapour baths which do not retain a particle of saline matter. Scrofulous pththisis is also treated in an illusory manner: the patients are advised to breathe the air containing the saline principles, but the real, the energetic treatment is exclusively kept for true scrofula, against which it is all-powerful.

CLINICAL RESEARCHES ON DISEASES OF INFANCY, BY DR. LEGENDRE. Part II., Paris, 1846.

On a former occasion we mentioned Dr. Legendre's views of cephalic disease in children; and we purposely postponed the review of the most important chapter of the volume, because we deem it to deserve special and separate notice. It was hitherto believed, on the authority of Rilliet, Barthez, Barrier, and of other more ancient writers, that, in children, pneumonia is an extremely common affection, particularly in the lobular shape. M. Legendre demonstrates, we believe, victoriously, that this lobular affection is not pneumonia, but a singular and hitherto undescribed condition of the lobule, to which he gives



the name of "état foetal," because these subdivisions of the lung appear to have returned, in consequence of obstruction of the air tubes, to the collapsed state of the foetal lung. The anatomical characters of the "état foetal," skilfully grouped by the author, and contrasted with those of true hepatization, can leave no doubt on the mind. The lobules thus affected are of the colour of wine-lees; they crepitate no longer when pressed between the fingers; they are flaccid and soft, not dense and hard as in inflammation. Their tissue resists powerfully any laceration; on minute dissection their anatomical elements are found to be in a state of complete integrity, and by insufflation they are readily distended. But it is not enough to have thus shown the differences between this singular condition of pulmonary tissue and that of inflammations: Dr. Legendre further inquires into its mode of production, and observing that lobular pneumonia never sets in suddenly, but occurs mostly in children weakened by catarrh, attributes its formation to the obliteration of the smaller bronchi by viscid secretions, the expulsion of which is prevented by debility. Dr. Legendre, not satisfied with half measures, boldly denies the possibility of lobular hepatization—a morbid alteration which, for our part, we never could thoroughly understand: in truth, no plausible reason can be brought forward why inflammatory action should be limited in its process by the cellular intersections which separate the lobules of the lung; but we can without difficulty admit with Dr. Legendre, that, each lobule being formed by minute bronchial divisions emanating from the same vessel, any obstruction or obstacle to the penetration of air, such as would result from capillary bronchitis, will be followed with anatomical changes which will only be observed in those lobules in which terminate the obliterated tubes. Thus is explained the frequency of the so-called lobular pneumonia of infants, the inefficacy of depletion of the vessels in the treatment, and the success which often attends unexpectedly the exhibition of tonic and even stimulant medicines.

Capillary congestion of the lung has also attracted a large space of the author's attention, and by the congestive nature of pneumonia in the aged he accounts for the mobility of the disease at an advanced period of life, the sudden appearance or cessation of souffle in the lung, and the dangers which attend venesection in such cases.

Although Dr. Legendre denies the existence of lobular pneumonia, he does not by any means refuse to admit partial hepatization in children; but it is not limited to lobules, nor circumscribed by their cellular margins: it is to this form that he refers what has been said of a singular variety of pneumonia in children, which French authors call "pneumonie mamelonnée." We conceive that in this interesting paper Dr. Legendre fully succeeds in establishing the point which he intended to carry, namely, the substitution of the "foetal state" to the alleged lobular hepatization; and we feel certain that whoever reads the elaborate chapter on pneumonia will be disposed to adopt theories, the truth of which can every day be tested in the dissecting-room.

*Digitaline.*—This substance, which has been of late studied by M. Homolle, presents all the properties of digitalis; its power is 100 times greater than that of the dry powder: one-fiftieth of a grain of digitaline is therefore equal to two grains of powdered digitalis. The dose which M. Homolle recommends varies from one-twenty-fifth to one-twelfth of a grain daily. With regard to its mode of action, M. Homolle considers digitaline more in the light of a regulator than as a sedative of the circulation. From experiments instituted for the purpose of ascertaining the fact, he concludes that the rapidity of the circulation of the blood cannot be properly judged of from the quickness of the pulse, a more vigorous stream of blood being obtained generally from a patient whose pulse beats 55 or 60 times in a minute, than from one whose artery presents 90 or 100 pulsations; indeed, having remarked that when digitalis diminishes the frequency of the pulse, the strength of the arterial beat is increased, M. Homolle is induced to believe that digitaline may be used for the purpose of

restoring energy to the contractions of the heart, when its action is interfered with by organic disease.

#### HOTEL DIEU.

##### CLINICAL LECTURE, BY PROFESSOR CHOMEL.

Not only for his own sake, but for that of his patient, the physician should endeavour to acquire great moral influence over him. It is, therefore, necessary that the medical attendant should obtain the full confidence of his patient; and, as this is by no means an unimportant part of medical practice, we will consecrate this lecture to the subject. The first advice we will give you is to listen with patience and attention to every word your patient has to say; although the account he gives of himself may be prolix, you must not show any desire to stop him, for, if you betray any inattention, the patient's confidence will be very much shaken. The subsequent mode of interrogation will tend to confirm the good or bad impression you will have at first created. The questions should be directed in such a manner as to receive, for the most part, affirmative answers, by which the patient will become aware that you understand thoroughly the nature of his case. You must never neglect the physical examination of the organs, even when the exploration may not appear necessary: it will often lead you to unexpected discoveries; it will permit you to avoid errors which first impressions sometimes produce, and in all cases will increase the confidence of your patient, by convincing him that you have neglected no means of investigating his case. He will then bear his ailments with more patience, because he will be certain that your therapeutic efforts will be properly directed.

The prognosis of future symptoms is in practice of considerable importance; the announcement of a febrile attack, of the cessation of diarrhoea, headache, &c., when realized, gives additional weight to your word. With regard to the prognosis, the physician's conduct is often embarrassing; in chronic diseases, for instance, when asked for his opinion as to the probable duration of the malady, if he tells the plain truth to the patient, he will discourage him; if he conceals it, he will be accused of a mistake. It is best in such cases to abstain from giving a positive answer, which might, on the one hand, dishearten the sufferer, or, on the other, injure the medical attendant's reputation.

It is not only necessary to the physician to acquire the confidence of the patient, but it is often an indispensable adjunct of the treatment to support his courage, and to prevent him from experiencing uneasiness in the future progress of his case. This is easily obtained by a simple artifice of diagnosis, every day renewed, and every day successful. Thus, if you have to deal with a case of phthisis, you will avoid any expression that would recal the idea of consumption, and speak only of bronchitis; or, selecting another seat for your diagnosis, you may express the opinion that dyspepsia, diarrhoea, &c., are the chief lesions, and the cough only a trifling complication. Thus, again, to a woman whose mother died of cancer of the uterus, you will not mention the womb, but feign to attribute her sufferings to another organ in the neighbourhood—the rectum, for instance; in doing this, you will only obey the dictates of humanity, without in the least degree injuring your patient, against whose real disorder you will, of course, direct your most energetic efforts.

D. M'CARTHY, D.M.P.

The Prussian Government has just published a decree regulating the business of druggists. Among other alterations, it is decided that, for the future, a person in order to become a druggist, must pass two years in studying in an university.

MANCHESTER MEDICAL SOCIETY.—The following gentlemen have been elected office-bearers of the Society for the ensuing session:—*President*—Dr. J. L. Bardsley. *Vice-Presidents*—Dr. Black, Mr. Noble, Mr. Hunt, and Dr. Radford. *Councillors*—Messrs. Crompton, Dorrington, Ker, Brownbill, Franklin, Middleton, Southam, Bent, W. Golland, Goodman, W. Smith, and Dr. Lambert. *Treasurer*—Dr. Ashton. *Honorary Librarian*—Mr. Stone. *Honorary Secretaries*—Drs. Renaud and Reid.

#### ORIGINAL CONTRIBUTIONS.

##### The Nature, Causes, and Treatment of Mental Diseases.

By M. PINEL, M.D., Member of the Academy of Medicine, formerly Physician to the Bicêtre and Salpêtrière Asylums, Author of the "Traité Médico-Philosophique sur l'Aliénation Mentale," "Médecine Clinique," "Nosographie Philosophique," &c. &c. Translated, with Notes, illustrative of some important Doctrines in Physiology, Phrenology, and Moral Education,

By DR. COSTELLO,

Principal of Wyke House Asylum, Editor of the Cyclopædia of Practical Surgery, &c.

##### ON THE MORAL TREATMENT OF INSANITY.

In all the chronic affections of the brain, in the partial deliriums which by the effect of morbid habit in the organ are still kept up, such as certain monomanias of the ideas, and melancholias, and even in the commencement of demency, the physician, who has exhausted all the other resources of his skill, may still find new and sometimes unexpected ones, in the moral treatment. But this treatment is not confined to merely combating or correcting false ideas and delirious conceptions by just ideas, logical reasoning, and sudden emotions; it also embraces all the moral means required in other affections of the brain, especially when they have passed into the indolent and chronic state, and these means are very numerous.

A physician who comprehends all the importance of this treatment must aim at removing the moral causes, which, after having excited the delirium, have a constant tendency to keep it up, or to reproduce it at the moment of convalescence. Love, religion, jealousy, grief, often render insanity incurable, solely from their effects becoming renewed at the favourable crisis of the malady. Persons of ordinary faculties resist their influence with difficulty, as it requires a strong resolution and great strength of mind either to forget or to overcome a passion which has proved strong enough to cause insanity. Religious feelings and scruples are the more tenacious from their often being grounded on, or enforced in the name of, things the most sacred and respectable; and it is as difficult to bring back the mind of a religious monomaniac to the state of indifference in religion, as that of a political one to that of indifference in politics; and yet, unless such a state of indifference on the subject of their exaltation can be induced, relapse is constantly to be dreaded.

Another point is to withdraw the patient from all his ordinary affections—to separate him from his acquaintances and relatives—to isolate him, in a word, from all his former habits: experience has demonstrated that, without this preliminary precaution, all the rest is useless.

We should endeavour besides, in the moral treatment, to fix the attention of the maniac on a few objects—to make him think and reflect on what he is doing or saying—to thwart by every means of force, terror, or sharp emotions, the habitual flow of his wanderings.

In monomania we have to combat, face to face, the false or vicious idea which presses on the patient's mind, which pursues and afflicts him, or which keeps him in a state of constant dread. In some cases the great difficulty is to combat certain evil inclinations by exciting the opposite dispositions, and to uproot the bad propensities by cherishing kindly and salutary feelings.

In melancholia, and in chronic delirium, our object should be to raise courage and revive hope, by assuring the patient that he will soon get well, and by dissipating all the distressing chimeras that darken his prospects; he must be led back to his ordinary affections and natural feelings, the slightest perversion in which always indicates some perturbation of the other faculties. In a word, the treatment must be directed to the most proper means for placing the patient in a position materially suitable to his state, so as to prevent him from doing any act that might prove prejudicial to himself or others.

Such are the important indications that the



moral treatment brings to view, and of which we shall now sketch the fundamental points.

It will not be unprofitable to begin by examining the influence of the passions on our economy, and their effects as the most common cause of the derangement of our faculties,—considering them, in this view, solely as mere phenomena of the organism on which they are for ever reacting by sensations of pleasure or pain.

It is impossible to conceive an impetuous, passionate impulse, without the idea of an obstacle opposed to its accomplishment, or, in other words, without supposing a disagreeable sensation to be avoided, or a pleasure to be sought. These natural tendencies are inherent to the free development of all our functions; and the most powerful motive of our actions is, beyond all doubt, that instinct which relates to the perpetuation of our species, and which includes three very powerful feelings, viz., the preservation of life, the reproduction of our race, and the protection that our offsprings require during the period of infancy.

Among the painful sensations that remind us of the preservation of life, we must reckon hunger—the desire of nourishment and of providing for our wants—which governs in every form the actions of man, whether civilized or savage; the anxiety felt in the effort of breathing when we want air; the painful impressions of heat or cold, which force us to use clothing, or to build salubrious habitations; the feeling of distress or uneasiness accompanying the forced retention of the residue of our food; the feeling of lassitude that follows an excess of bodily exertion, which calls imperatively for refreshing rest; and the state of suffering caused by the morbid derangement of the functions, which impels us to seek for relief. Is it not by exercise of this conservative feeling of our existence that we incline naturally to the kind of food the best calculated to please the palate; that we experience a plenitude of vitality in breathing a pure temperate air; a feeling of general well-being after the normal and complete accomplishment of our organic functions, more especially where, in obedience to the impulses of nature, the act of generation becomes, from the very force of desire, an additional enjoyment?

From these different sentiments of pain or pleasure, all relating to the preservation of life, we see, in the social and civilized state, arising all those artificial wants which form new causes of deep emotions and desires: such as the thirst of honours, place, money, celebrity, political distinction, and which are pursued as objects of well-being or vanity; and these desires, continually excited, and so rarely satisfied, are unceasingly telling on the intellectual faculties till they finally fail under their uninterrupted shocks. Such is the concatenation of wants, and results apparently so unconnected with each other, and which we see every day giving rise to delirium, mania, suicide, and all the intellectual and affective perversions, which seem as it were the necessary accompaniment of a largely-developed civilization.

Thus every human passion—and we now speak abstractedly from any notion of morality or immorality—is referable to the want, real or artificial, of those enjoyments which our physical or moral well-being requires. Let us now suppose that, to this general cause, we have conjoined an extreme sensibility, a highly-irritable nervous susceptibility; and we shall see these desires converted into grief and pain insupportable, and bursting forth into passions the more violent, as the obstacle opposed to their gratification happens to be great or unforeseen.

This is their principle: let us now contemplate their effects. After this excitement languor, paleness of the countenance, coldness of the extremities, slowness of the circulation, oppression, anxiety, listlessness, and difficulty of breathing, interrupted with sighing, and at last comatose dozing, or even catalepsy. When the passion is concentrated on one continuous and uniform effect, instead of exploding into attacks of violence, its disorders are not the less profound,

and their very continuity, under an appearance of calm, only renders their ravages the more dangerous. At first the disorder shows itself in mere general *ennui*; a decided disinclination to motion or exercise; sluggishness and indolence of all the nutritive functions; slow, gradual, wasting, under the influence of melancholic ideas. Sometimes we observe the first indications of an irresistible propensity to thoughts of death and to suicide; at others, a furious or tranquil delirium, which shows itself in disturbance and confusion of ideas, in a sort of wildness or stupor; a remarkable alteration of the features; and at last in a sudden explosion of the most violent mania.

If we analyse all these causes, all these effects of grief, terror, anger, hatred, jealousy, and joy, we shall find, allowance being made for modifications inherent in the position and constitution of each individual, that it is always by either wounding or flattering the sentiment of our existence, that these passions have the power of extending the effect of their disorders to the brain, and that they at last give rise in this organ to the derangements which at first congest, and finally disorganize, it. Moral treatment, in order to be successful, must as carefully trace out the first causes, as track them afterwards in all the physical alterations they produce in the organism.

We see, then, that the moral causes are no more than the exaggerations of certain functions of the brain itself; and that these most frequently produce all its derangements. We shall see by-and-by the resources they present, as means of cure, in certain kinds of insanity, when they are skilfully combined with other agents.

#### EFFECTS OF ISOLATION.

The separation of the insane from the objects amongst which they lived up to the time of the attack, their removal from those habits of life in which they lived with their relatives, friends, and servants, are conditions rigorously indispensable for the commencement of a treatment that can offer any favourable chances. Daily experience demonstrates how difficult it is to cure the rich insane in their own homes. When removal to a special establishment is not allowed, arrangements should be made at once for placing the patient in a state of artificial isolation, by changing his dwelling and all his attendants. By this isolation we fulfil very important indications; we thus remove the patient from the first causes by which he has been vividly affected, and which might continually revive the impressions he has felt; and this already must tend to make him forget them. In the next place, he is no longer distressed by the sight, always painful, of the persons who first witnessed his delirium, and who have often assisted in mastering him, and for whom, whether from weakness or shame, he always entertains an invincible repugnance. If he be left to the care of those who have waited on him usually, he will insist on being obeyed, and will give his orders in a tone of irritation and violence; and his indocility and importunities will be all the more imperious, as his own servants will not venture to resist him, or to employ the force and constraint necessary to ensure compliance with the orders of his physician. But the matter will be very different when surrounded by persons who are new and unknown to him; they will have whatever degree of command over him may be thought proper; as strangers, they will obtain without effort concessions which he would pertinaciously refuse to his friends; and besides, while they show every care and complaisance, they will know how to give their compliance the appearance of its being done with their full consent, or at least in consequence of superior orders; and, when the occasion requires, they will know how to refuse him whatever may be improper, without entering into useless explanation. He will at last begin to think himself fortunate in receiving marks of kindness, which his attendants will have the prudence to remind him are bestowed on account of his illness; and, as soon as his mind

begins to recover a little, he will yield a ready obedience to whatever he is told to do.

In thus changing the habitual sphere of an insane person, everything that encompasses him is new to him, and produces a useful diversion on his mind. That greedy curiosity that inclines almost all such patients to seek for new objects, and to study and become familiar with them, forms a powerful and continual distraction which contributes to efface their former ideas, to blunt the pain of their impressions, and to give a new turn to their reflections and sentiments.

The moral effect of isolation has been denied by some; but, on this point, practical experience, more authoritative than mere reasoning, has fully disposed of the objections. It has been imagined that the insane, on being separated from their families, the persons they loved, or their servants, tormented and disquieted by such separation, might be so grieved that their state would be thereby aggravated; this objection is not only unfounded, but is even contrary to facts. The sentiments of the insane are as much perverted as their intellect—so much, in fact, that this very perversion is one of the characteristic symptoms of real insanity. An insane person no longer loves what he had loved—no longer reasons as formerly; and this is so completely the case, that his bewilderment often deprives him of the knowledge of the place where he is, and of the persons that attend on him. Nay, more: if happily he be capable of feeling regret or sorrow at being separated from those he could still love or recognise, it would only form an additional motive for his immediate isolation; and this feeling might be turned to good account in directing the moral treatment, either by exciting, at the proper time, lively impressions, or by inducing the patient to submit to what his treatment rendered necessary, through the very wish of being speedily restored to his family. When, from a motive of this kind, we found him docile and eager to do what he was bid, we should at once recognise some of the happy presages of his cure.

Fears have also been expressed lest the sight of other insane persons, and living in common with them, might not make such an impression as to increase the mischief. This is another chimerical apprehension which daily experience proves to be utterly unfounded. The first impression of astonishment, on an insane person entering into an establishment, on finding himself surrounded with other insane persons, is always salutary: he feels at once that he is in a place where he must obey; and as to those who are too insensate to feel where they are, the impression is null, and can therefore form no ground of objection. But the patient who still retains sufficient intellect to know where he is, is always vividly impressed on his first admission; he is confused, and by that very fact the more disposed to look up to the physician as his support and guide. He soon makes acquaintance with the attendants, but scarcely ever with the other patients. In general, the insane seem to be ashamed of themselves and of those they see; they almost all live apart, cherishing their delirium. It is only in convalescence that signs of friendship are observed amongst them; and even this very repugnance is a means which may, in some cases, be turned to account in the moral treatment.

The grand objection to isolation has been the fear that abuses against the liberty of individuals might be perpetrated, under cover of the facility afforded for sequestering persons labouring under intellectual derangement. But, of late years, legislation has provided against such occurrences, and we cannot admit that a physician would lend himself in any establishment, whether public or private, to improper proceedings of which he himself must of necessity and speedily be the first victim.

Isolation in a public or private establishment imposes the necessity of the material arrangements in regard to regimen, superintendence and management, which properly belong to the chapter on hygienic treatment.

Voyages have been proposed as a means of isolation; such travels, being in fact nothing more



than a continual succession of diverting objects, can only be profitable when the patient's mind can be usefully stimulated by them—that is, when his convalescence becomes fully confirmed; and even then they should only be had recourse to with due precaution, and under the continual guidance of an experienced physician. At this period, and in such hands, the importance of moral treatment cannot be exaggerated. In addition to the superiority which he has so justly acquired over his patient, no matter how high his rank—and which he must always retain without making him feel it,—what more animated subject of uninterrupted excitations can there be, than that supplied by the rapid succession of places, recollections, and impressions, renewed from day to day, and which he may turn to such happy account, to divert, to impress, or to correct an intellect still feeble, or badly disposed! The temperate climes of Switzerland, Italy, or Germany are in general to be preferred for such voyages to regions either too cold or too hot. Chance, in one case, was the cause of cure by sea-sickness. A young student, completely insane, who had been sent home to America by his brother, was so ill of sea-sickness for twenty-two days that he arrived in a state of extreme prostration. He soon recovered his strength, and his reason at the same time. I am seriously of opinion that long sea-voyages, and sea-sickness particularly, employed as curative means, and all precautions being taken, might effect a salutary crisis in many cases of chronic delirium, which are now quietly allowed to become incurable.

#### REPORTS ON THE DISEASES OF FEMALES.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery in St. Bartholomew's Hospital, Examiner on Midwifery to the University of London, &c.

#### FUNGOID DISEASE.

(Continued from page 10.)

The two next cases which I propose to report are where fungoid disease of the uterus has assumed a polypoid form, and has been partially removed by the ligature.

E. K., aged 38, married ten years, has had ten children.

May 15, 1845. Tall, emaciated, light-haired, pale, and cachectic; complains of great debility; much gastric derangement and night sweats; pulse 112, sharp, but feeble; tongue very clean; has a constant, watery, yellowish, and highly-offensive discharge; does not suffer much pain except at the catamenial periods, but has a sense of weight and bearing down. Has always enjoyed good health until the last six months, when she was prematurely delivered at the sixth month, after a severe labour, since which her health has been gradually getting worse. There has seldom been any discharge of blood.

*Examination per Vaginem.*—A lobulated fungoid mass, with here and there soft depressions, which readily bleed on being touched, is felt occupying the whole vagina, but unattached to it; it appears to diminish in size towards the upper part, but its attachment to the uterus cannot be reached, neither can the os uteri be distinguished; the discharge is very offensive, and hemorrhage followed the examination.

R. Pil. hydrarg., extr. coloc. co., aa. gr. v., o.n.  
R. Acidi nitrici dil., m. xv.; infus. gentianæ co. t. d.

23. A ligature was passed round the upper part of the tumour by means of Goode's double canula; the mass was very soft, readily breaking down under the ligature and bleeding much.

R. Quinæ disulph., gr. x.; acidi sulph. dil. m. x.; infus. quassia, 3jss.; m. ft. haust. ter die sumend.

27. The ligature has been tightened daily, it occasions much bearing and dragging pain afterwards; the discharge is copious and excessively offensive; the general health suffers much; night sweats and hectic. Pergat. sumat liq. opii sedativi, m. xx. o.n.

June 6. The tumour came away last night, it

was of the size and shape of a large fig; she feels better, and the discharge is diminished; tongue clean. Pergat.

18. Has continued daily to improve in health and appearance. Discharged much relieved.

This was one of two or three cases of malignant disease where the application of the ligature had been delayed until the patient was almost too much exhausted to admit of relief. The powers of the system were already so broken down that she appeared to be sinking, and much irritation was produced by the highly fetid character of the discharge; as soon, however, as the mass was removed a striking improvement was observed; she gained appetite and flesh, and flattered herself that a complete cure had been effected. A slight florid discharge had taken place just before she left the hospital, when she deceived herself with the hope that it was a return of the catamenia.

In about a month or six weeks she presented herself as an out-patient in much the same state as when first admitted; a manifest change for the worse was observable the next week, from which time she ceased to attend.

H. C., aged 36, single; brunette.

Jan. 16, 1845. Sallow; debilitated; much gastric derangement; is conscious of the presence of a large foreign body in the vagina; pain on pressure above the symphysis pubis; has a discharge of thick, yellowish, offensive fluid from the vagina; tongue pale, furred at the base; pulse 96, of moderate strength.

Menstruated first at the age of fourteen, and has continued regular until four months ago, since which her health has been failing; the catamenia have become profuse, and were attended with pain, but latterly have ceased entirely.

Four months ago she first observed a yellowish, purulent, and highly offensive discharge from the vagina, which has continued up to the present time; much irritability of bladder and rectum, but without much pain; these symptoms have gradually increased in severity.

*Examination per Vaginem.*—A large, irregular, fungoid tumour may be felt occupying the upper part of the vagina, arising by a well-marked pedicle from the cervix uteri.

18. A ligature was passed around the neck of the tumour without difficulty or pain; it produced considerable discharge; the mass is about the size of a man's fist.

R. Pil. hydrarg., gr. iij.; ferri sulph., gr. ij.; extr. lupuli, gr. v.; m. ft. pil. ij. o.n.s.

R. Sodæ potass. tart., 3ij. o.n. Full diet.

19. Had a bad night, owing to much pain in the uterine region and back, which ceased in the morning after a chamomile injection into the vagina; towards the afternoon she felt better, the bowels having been opened; pulse 80; tongue cleaner. I tightened the ligature.

R. Ferri sulph., gr. ij.; ext. lupuli, gr. vj.; m. ft. pil. ij. nocte maneque sumendæ.

R. Acidi nitrici dil. 3ij; tinct. hyosc., 3ij.; mist. sacchar., 3ss.; infus. gentianæ co., 3vij; m. ft. mist. ejus sumat cochl. magn. ij. ter die. Injiciatur infus. anthemidis in vaginam ter die.

20. Passed a comfortable night; is free from pain; the discharge, which has been considerable since the application of the ligature, is now much diminished; it is still very offensive, but colourless; pulse 84; bowels have not been open since yesterday. I tightened the ligature. Rep.

21. Did not sleep well, owing to pain in the uterine region, and a dragging sensation; bowels open twice from an enema; tongue covered with a brownish fur.

R. Hydrarg. chloridi, extr. hyoscyami, aa. gr. v.; hæc nocte sumenda; sodæ potass. tart., 3ij. cras mane.

24. The ligature is tightened every day; an offensive discharge still continues; bowels confined; countenance improved; tongue still furred, but appetite better; pulse stronger.

Rep. hydrarg. chlorid. hæc nocte.

27. The tightening of the ligature on the 24th gave so much pain through the night and following day that it has not been tightened since. The tumour is much lower down, and does not seem to drag so much; it appears nearly detached; slept

well; appetite improving; tongue brownish, furred; pulse 88, feeble.

Rep. pil. ferri sulph. et mist.

31. Slept well; continues to improve in every respect; bowels open; tongue cleaner. I tightened the ligature. The injections of infus. anthemidis are continued three times daily. Rep.

Feb. 4. Improves daily in her general health; tongue still furred. I tightened the ligature. Rep.

7. I again tightened the ligature, and, giving the polypus instrument two or three turns, the tumour became detached, and was removed; it was shrunk to about the size of a small orange. Rep.

11. Since the removal of the tumour she has been daily improving in strength and spirits. An offensive discharge, however, still continues, although diminished in quantity. On examination, a lobe of the tumour which had not been included in the ligature is found to have come lower, and has a distinct neck.

21. For the last few days her health has not been quite so good; the discharge is of the same offensive character. Dr. P. Smith passed a ligature round the above-mentioned lobe, the tightening of which caused considerable pain.

R. Liq. opii sed. m. xx., ex mist. camphoræ h.s.s.

22. Slept some hours in the first part of the night, and then the pain returned, of a dragging and bearing down character; the bowels have not been moved; there is a copious, colourless, highly offensive discharge from the vagina; pulse 80; tongue foul; the ligature was tightened. Inject. anthemid. sæpius utend.

24. Has been in severe pain since the ligature was tightened; bowels confined; the ligature was again tightened.

R. Pil. hydr., ext. coloe. co., aa. gr. v. h.s.

R. Sodæ pot. tart., 3ij. cras mane.

25. Passed a sleepless night on account of the dragging pains; bowels confined.

Rep. pil. h.s. et mist. gentianæ c. acido nitrico.

28. Has been tolerably free from pain since last report; the bowels have been moved; the tongue is cleaner and the countenance improved; the discharge is excessively offensive; the ligature was tightened and gave less pain than before, but since then she has had much dragging pain; vagina very tender; discharge produces great smarting and heat; bowels open; tongue cleaner; pulse 80, soft.

Rep. pil. et mistura. Perstat in usu infusi anthemidis pro injectione.

March 3. R. Ammon. sesquicarb., gr. iv.; infus. gentianæ co., 3jss. ter die.

6. Feels better in every respect; the instrument has come away, leaving the tumour in the vagina; bowels open; tongue furred. In the evening Dr. P. Smith removed the tumour with a forceps; it was as large as a pullet's egg, hard, and lobulated. Rep.

7. *Examination by speculum and finger* showed the anterior lip of the os uteri to be hard and lobular; the remains of the tumour were seen growing from the interior of the uterus, evidently of a cephalomatous character; the posterior lip, as far as can be ascertained, is healthy; bowels open.

Rep. appl. argent. nitr.

11. Improves daily in strength and appearance. On examination with the speculum, a projecting lobule from the mass within the uterus may be seen as large as a walnut, from which there was a slight appearance of hemorrhage; it readily broke down under the application of nitrate of silver. Rep.

13. Sleeps well; appetite good; bowels open; has been almost free from pain for the last few days; discharge scanty, red, not so offensive.

R. Quinæ disulph., gr. ij.; acidi sulph. dil. m. ij.; aquæ, 3j. m. ft. haust. ter die sumend.

R. Ferri sulph., pulv. zingib., aa. gr. j.; extr. gent., gr. iij.; m. ft. pil. j. sumat ij. h.s. Applic. acid. nitricum tumori.

18. Continues to improve; appetite good; bowels open; tumour much diminished in size.

Rep. med. et acid. nitr.

20. Continues daily to improve.

Rep. applie. argent. nitr.



28. Tumour continues to project from the os uteri, but is decidedly smaller.

Rep. et argenti nitr.

April 11. The tumour grows rapidly; the discharge is very offensive; the argenti nitr. has been applied twice a week since last report; bowels relaxed. Rep.

R. Haust. rhæi et magnes.

22. The tumour is rather diminished in size; it is very friable and sloughy. The nitrate of silver is applied twice a week, and warm water is injected with some force immediately after the application, which brings away portions of the mass; general health continues to improve. Rep.

May 15. The tumour continuing to grow in spite of the application of nitrate of silver, it has been discontinued for the last fortnight. The health begins now to suffer again, and the tumour is increased to about the same size as on her admission. She returned home, feeling that her case was hopeless, became rapidly worse, and died in about three weeks after she left the hospital.

I think that the history of this case, extending over a period of half a year, is a sufficient evidence that we are justified in using such modes of treatment for delaying, if not of arresting, malignant fungoid disease of the uterus. From the rate at which the powers of the system break up under these affections there is little reason to suppose that she would have lasted beyond six weeks or two months but for the treatment which I adopted. In all cases of malignant disease, whether commencing or advanced, the circulation is almost always in a very unhealthy condition, the various organs which act as emunctories for the excretion of effete matter and other impurities from the circulation are either torpid or in a very imperfect state of action, and it will generally be found that large and repeated evacuations of excessively unhealthy and offensive matter from the bowels will be procured by the use of gentle alteratives and laxatives. At an early stage of these affections, when the strength is as yet not much impaired, it is important to keep up a pretty brisk action on the liver and bowels for some time, and to a considerable extent, during which the powers are well supported by chalybeate and other tonics, the circulation becomes more healthy, the colours of the patient brighten, and the various functions become more healthy. In proportion as we can gain this favourable object do we delay the progress of the disease, and if, by good fortune, the disease admits of partial removal by ligature, the temporary improvement is sometimes very striking.

Whether the lobe of fungoid growth which was tied after the removal of the tumour had escaped my notice in the first instance, or, as is more probable, had been gradually increasing in size while the first ligature was attached, is not easy to determine. I might have pushed the use of escharotic applications still further, as they certainly produced relief for a while; but it was becoming too evident that the disease was gaining upon the means of treatment in my power, and I no longer felt justified in maintaining a hopeless and unsuccessful struggle, although I shall always look back on this and many similar cases with satisfaction, from the consciousness that I had for a while prolonged life and diminished suffering under circumstances which are usually considered as affording no scope for medical treatment beyond the administration of opiates.

## REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 64.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

There have been numerous definitions of insanity, in each of which there is something incomplete or objectionable. Locke referred insanity to false judgment, while Dr. Battie thought the *perception* to be at fault, together with a *deluded imagination*. Cullen considered it an impairment of the judging faculty, he describes it to be "in a person awake a false or mistaken judgment of those relations of things which, as occurring most frequently in life,

are those about which the generality of men form the same judgment, and particularly when the judgment is different from what the person himself had before usually formed." And he says again, "There is generally some false perception of external objects, and such false perceptions necessarily occasion a delirium or erroneous judgment which is to be considered as the disease." Locke observed, "That madmen do not appear to have lost the faculty of reasoning, but having joined together some ideas very wrongly, they mistake them for truths; and they err as men do that argue right from wrong principles."

Dr. Mason Good considered the judgment and perception to be both at fault, although not equally so. Lord Erskine imagined, where there is no frenzy or raving madness, *delusion* is the true character of insanity; and Dr. Willis was of opinion, that unless symptoms of *delusion* were betrayed, the soundness of mind of the party could not not be questioned. Dr. Prichard refers insanity to "a disordered state of the functions of the brain, which give rise to disturbances in the operations of the mind," presuming that a lunatic confounds the ideas of reverie or *imagination* with *memory*.

Insanity is, according to Dr. Conolly, "the impairment of any one or more of the faculties of the mind, accompanied with or inducing a defect in the comparing faculty." It is, in the opinion of Dr. Copland "the exhibition of morbid and prominent points of character uncontrolled by reason, this being opposed to the established opinions of society."

Now, whether we regard the "erroneous judgment" of Locke, the "deluded imagination" of Battie, the "injured imagination" of Mead, the "delusive image" of Lord Erskine, the "false belief" of Haslam, or the "delusion" of Willis, we find something incomplete, incomprehensive, or erroneous.

It has hitherto been found impossible to give a definition which will act uniformly and justly in every conceivable case: some indeed "have been so narrow as to set at liberty half the patients at Bethlem, and others so loose and capacious as to give a strait-waistcoat to half the world."

It will be found, on taking a comprehensive view of the subject, that one faculty or some particular emotion or passion is generally specially affected, and hence has been described that characteristic the most uniformly seen, or the most prejudicially sought for. The various shades have depended upon the different degrees of reflection, and hence the contrariety of opinion as to what specifically indicates insanity is likely to be as great and as unsatisfactory as it would be to determine the actual colour of the chameleon.

Dr. Prichard considers that the judgment or reason of a lunatic is never perverted; but I certainly accord with the opinion of Dr. Conolly, that the judgment is always perverted in insanity, although in different degrees. Judgment results from comparison; and a great characteristic of insanity is the incapacity for comparing facts with each other. The insane do reason, and often on wrong premises, but it is almost invariably observed that the judgment becomes weakened even in incipient insanity.

That man may be said to be insane who has no control over his thoughts and actions; it is not the mere knowledge of what is right or what is wrong, for many lunatics at this moment in confinement are very good judges on such a subject, but, notwithstanding this discrimination, they knowingly do that which is wrong, feeling an irresistible and persistently encouraging impulse which cannot be controlled; but, according to law, every man is responsible who knows right from wrong.

An insane person generally either holds some opinion which no rational person could entertain, or he reasons in such a way as at once to prove his irrationality; and, in addition to either or both of these, there is often a characteristic physiognomy, a peculiar manner, a diagnostic gait, with more or less inconsistency and eccentricity, and these not unfrequently combined with suspicion, exaggeration, irritation, or violence.

There is a great distinction between perception

and reflection: the perception alone may be at fault, while the reasoning may be correct; and, again, a person may reason wrong and perceive right: this has been termed partial insanity.

Some patients know their perception and judgment to be at fault, and will, without hesitation, acknowledge it; others never will admit it, but declare those to be mad who differ from them.

*Unsoundness of mind* consists in a morbid condition of intellect, or loss of reason, coupled with an incompetency of the person to manage his own affairs.—Amos. "Lond. Med. Gaz.," vol. 8, p. 419.)

This appears to depend on the degree of mental imbecility; but no rule can be laid down, for we shall hereafter see that those actually proved *non compos mentis* have exhibited a self-control which would have given them a verdict of sound mind, had not some accidental circumstance, or the entrance of an individual, led to the particular hallucinating point.

A person of merely weak mind, although he may be very eccentric and foolish, yet, when his errors are pointed out by another, he sees and admits them; but if insane he cannot perceive them, and will neither believe nor acknowledge them; yet, although this person of merely weak mind does acknowledge his errors, he never profits by them, he never gains experience, and he is as indiscreet at fifty as he was in boyhood; so that, if such a person was considered unfit to manage his affairs, it would not be because he was insane, but from his being either imbecile or idiotic.

The generality of mad people are at once detected as such, and it is in doubtful cases only that so much judicial and general excitement prevails. "A madman does not understand what he is doing, and, wanting mind and reason, differs little from brutes."

The chief object in the present instance is not only to establish what is meant by a sound mind, but also to point out the various deviations from a healthy state of mind. It is not considered so necessary to dwell at any great length upon those more severe disorders which every man would unhesitatingly pronounce to be raving madness, fierce delirium, or wild incoherence, but we shall endeavour more particularly to direct our attention to those milder mental affections which, although rendering an individual peculiar or eccentric, leave him still in a state sufficiently sound as to enable him to conduct himself with general propriety, and to transact and manage his own affairs.

Therefore those various symptoms which every physician would, for medical purposes, necessarily minutely inquire into in each form of insanity, will only be very generally specified, as the immediate object is not to point out the means of treatment, but rather the most efficient way of detecting and preventing insanity, and also to protect those who have been unjustly deprived of their liberty of action.

Insanity is often characterized by an undue impression which fixes itself upon the mind with great pertinacity, and this impression may result either in error or truth; whether true or false, it is wonderful how it absorbs the attention, so that most important events are entirely disregarded by a person in this state. It is a mistake to imagine that, when an error is held, it always occupies the mind to the exclusion of other false ideas, there being generally the chief hallucination mixed up with a number of other weaknesses.

In judging of insanity a comparison should be instituted between the previous and the present habits, it being not so much the absence or presence of many eccentricities or peculiarities, as it is the remarkable *change* which occurs in most lunatics; indeed many peculiarities may offer the presumption of insanity in one person and yet not in another.

How commonly, as a precursor of mental aberration, is a change in the natural feelings; the wife who was beloved is now disliked, and looked upon with suspicion, her very fidelity being even suspected; the children, before so lovely, are now intolerable, and those habits of friendship which gave so much satisfaction are relinquished in antipathy and disgust.

It is much more easy, as M. Esquirol observes, to discover that the moral affections and passions



are disordered, than to detect illusion or delirium; and a return of these moral feelings and of the natural habits and sentiments must always be hailed with the greatest pleasure.

It is of the greatest importance to ascertain the previous character of an individual, for a person who is now represented as insane may have always been indiscreet, he may have been foolish in youth, as a man, and in old age—he may have been always eccentric in dress, manner, or habits.

Occasionally during the dark hours of night, while vigilant and restless, some peculiar fancy or idea presents itself—it cannot be dispelled, it occasions uneasiness. The affairs of the next day and cheerful society dispel it, and it may never recur; but if predisposition have existed, or should some unfortunate coincidental catastrophe occur, the judgment and reason may be shaken, the balance be destroyed, the mind be deranged; this may be temporary or it may be permanent.

A healthy mind should be able to dismiss an idea at pleasure, and change the train of thought; in monomania, or insanity principally referring to one subject, this cannot be accomplished—the attention is fixed upon and devoted to one object; but in many weak-minded persons, on the contrary, they do not give a necessary degree of attention to form a sound opinion, there being such an evanescence, and such a rapidity of thought, that time is not afforded for properly investigating facts; such persons have no stability, but are remarkably versatile.

If a person who had hitherto been peaceful, steady, prudent, and kind to his family, suddenly avoided his friends, threatened his relations, became passionate and intemperate in his actions, or engaged in purchases and speculations which he could not discharge, being not only totally inaccordant with his fortune, but also with his previous caution, all these would tend to show that his mind had been “turned,” that “a change” of mind had really occurred, and in some instances it might even be necessary for a jury or some competent authorities to at once decide as to the competency or incompetency of mind; for this very man twelve months subsequently would probably be thankful that he was prevented from ruining his family. The great point in such cases is to compare the present character with the previous life, and if, when such a charge first commences, the erroneous views and extravagancies are prevented from becoming fixed and enduring, by removal from home, or by seclusion from the family, the most marked benefit often follows immediately, and will sometimes be at once acknowledged by the patient himself, who is often fully aware of his mental aberration. Seclusion, or even removal, and temporary change of residence, will often entirely effect a cure.

If we see a person becoming gloomy and dejected, and this without any real cause, our vigilance should be excited, as it is by using moral means in such cases, when employed sufficiently early, that so much benefit may be effected. Often such persons are afraid to be alone; they have their minds haunted with suicidal promptings, which reason yet enables them to resist—but this is just the point: if such gloomy forebodings and wishes are allowed day after day to present themselves, that which was transient becomes more permanent, and on each recurrence self-control diminishes—even that which was previously known to be assumed is now believed to be true. So it is with the dislike and suspicion manifested to relations and friends: at first these insidious surmises disprove themselves, but, again and again returning, seem now more probable, till at length they are confirmed by having so constantly occupied the attention. Now, common sense at once dictates what should be done in such cases: the patient should be removed from home to some cheerful residence, either at the seaside or amongst rural scenery; if no particular dislike is shown or felt towards relations, one or more may be allowed to accompany him, but no one whom he has previously known or been intimate with, and to whom he feels an antipathy, should be thrust upon him. It is well known, even with ordinary invalids, that strangers manage them the best.

One of the earliest symptoms of approaching

aberration is the change in the person's character. We have just described a suddenly-acquired dejection and gloom, and we by no means less frequently find a person, previously sedate and reserved, suddenly becoming noisy, mirthful, and boisterous; bearing evidence of excitement which gradually becomes more marked; though before modest he is now indecorous, and he shows in every thought and action absence of self-control. Now, it is far better to consider this a case of *preternatural excitement*, than to pronounce it one of madness; and how judicious, how delightful, if by calming this excitement and removing those causes which may augment it, a medical man prevents such a person being consigned to a house where he must necessarily mix with those who are irrational.

At home, with quiet and proper remedial and moral means, this person may in a few days be quite restored to health and reason. Frequently these symptoms will be found to be dependent on a *slightly* inflamed state of the membranes of the brain.

To neglect such a case and do nothing is most wicked, for if such a person be left to himself he often plunges into all sorts of sensual excesses, the gratification of which soon renders him uncontrollable. It is at this time recourse is so often had to stimulating drink, which, like adding fuel to a fire, heightens this excitation into absolute frenzy. Therefore, whenever such symptoms are first observed, it is the duty of the medical attendant to exercise control often, by merely confining such a person to bed, with slight antiphlogistic and sedative treatment, and, by removing every source of excitement from the patient, future mischief will frequently be entirely prevented.

An insatiable appetite, if over-indulged, is constantly augmenting its evil, and to check it is often beyond the control of the individual, although knowing its injurious and wicked tendencies. It is when the passions are kept within the limits laid down by the general laws of society that an individual is allowed his personal liberty, but directly his actions interfere with the peace or happiness of his neighbours or friends, the evil power immediately interferes, if the prudence of his friends have not anticipated such necessity.

When religion forms the subject of erroneous impressions, there may be religious excitement and enthusiasm, or extreme depression, giving rise, in the former, to the most ecstatic aberrations, and in the latter to the most gloomy despondency. Now, whenever it is observed that a person shows excitement or despondency when such topics are introduced, the greatest care should be taken to prevent its recurrence; and a morbid irritability having been detected, which is generally physical as well as mental, change of air and scene, or travelling, should immediately be resorted to; so if an immediate or remarkable change of opinion is observed, that one previously doubting becomes without reason confident, or, when firm in her belief, suddenly falters, and this not arising from anything she has heard or seen, not being connected with any real change or conviction of heart, but depending on caprice, without foundation, here travelling, and any occupation which draws off the mind from its delusion, should be promptly attended to.

Those predisposed to insanity are often remarkably timid, and frequently complain of constriction of the throat, and they are not unusually remarkably fond of showing off and reciting and spouting. When the disease has manifested itself there is generally increased sensibility, extreme irritation—they may be indiscreet, brutal, or revengeful; there is often vigilance, pains in the head, stomach, or bowels, suspicion, apprehension, and passion; constipation and diminished secretions often occurring in incipient cases. The physiognomy, the eye, the gait, the dress, the altered habits, all proclaim the change.

An insane person generally has some suspicions that he is not quite right in his mind, and he may have frequently detected his false perception or delusion, but after a time, from their continually recurring, he believes them.

It sometimes happens that patients themselves desire to be placed under control, feeling they are

not possessed of sufficient self-control to prevent them from committing deeds which their reason even yet convinces them are wrong; and whenever such is the case, the patient's wish should *not* be disregarded, and, if such sollicitations are not promptly attended to, murder, suicide, arson, or other crimes may ensue, of course depending on the peculiar bent of the patient's character.

As it is found that a person becoming insane shuns his friends, disregards the attentions of his wife, and suspects every thing and every person, so when affection returns—when a patient wishes to see his family, and is anxious to be with his children—a cure may be anticipated. Therefore when we see alienation, suspicion, depression, or excitement, we should have our suspicions awakened, considering, as M. Esquirol has stated, that moral alienation, and calumniating and avoiding friends, are characteristics of insanity.

Many persons suffering from indigestion become infirm of purpose, irresolute, and indisposed for any enterprise—they are moody, thoughtful, and pettish; but an altered diet, and a little aperient medicine, soon dispels these vapours; however, even this is a state which should neither be encouraged nor tampered with, and it is advisable promptly to attend to dietetic and social regulations.

While indigestion renders the ideas and actions torpid and sluggish, quickened circulation through the brain, or slight inflammation, gives a sharpness to the faculties, a man's spirit is roused, his ambition is excited, he is ready for anything. This is a condition which is not to be induced with impunity; and where wine, mental exertion, or any other stimulant produces this preternatural excitement, the cause must be removed. Common sense at once dictates how necessary amusements, occupation, and lively society are for the one, and how essential quiet, repose, and abstinence may be for the other.

So, again, at the time the sexual function ceases, a female's mind may become disordered, she gets corpulent, indolent, gloomy, taciturn, undecided, apprehensive, and suspicious; here, as Sir Henry Hallford has said, it is in *degree only* she differs from melancholy mania.

How maddened some men become by drink. How excited, intemperate, and revengeful, when overcome by angry passion. How rash is the man in love. In each of these conditions they, for a time, are often not master of their actions. Some men are literally mad when drunk; and it is so uniformly observed in particular individuals, that their neighbours say of one thus influenced, “He is mad when he is drunk.” Now, this state cannot be indulged in with impunity; it may be frequently repeated, but at length the mind permanently gives way: the individual becomes a confirmed lunatic.

Persons when insane, as well as those who are sane, sometimes see spectres or spectral illusions, which may occur during night or day. These apparitions, especially when occurring at night, are generally caused by congestion of the brain, which may be only of a temporary nature; they more commonly appear at night, and especially when the attention has been wearied, and exhaustion supervenes upon excitement. Mrs. Siddons has related the disagreeable phantom which her excited imagination conjured up. Her husband had retired some hours; she was studying a part she was to act in one of Shakspeare's plays, her candles burning dimly, and darkness deep around her; at length, so completely did her imagination conjure up the reality, that in breathless haste she rushed out of the room, ran up stairs, and threw herself upon the bed, afraid for some time to speak or move.

It once occurred to the writer, on a cold, damp, and foggy night, in winter, to be sent for to a patient, to reach whose house it was necessary to pass through a long and dreary lane, more than a mile in length, there being no habitation near. I was on horseback, and, having ridden about two miles, entered this solitary lane; it was a most dreary night, and while reflecting upon the dangerous character of the case I was about to visit, and the probability of death, a sense of loneliness crept



upon me, and the hedges on both sides gradually appeared as mourners clothed in black, and where a tree happened to shoot up a little higher than the hedge, these irregularities appeared as mutes with their wands, this being also occasionally relieved on either side by white wands, which were in reality white posts. I saw my patient, found her most dangerously ill, and returned by the same road, but with a more faint vision of the mournful line. In this instance it was easily accounted for: I had been reading for several hours, and this, together with the dark and uncomfortable night, the lonely situation, and the fears I justly entertained respecting the patient's danger (who happily subsequently recovered)—all these tended to cause this optical delusion; and, although a most painful impression was produced, yet I was quite aware of its being an illusion.

Sir Joshua Reynolds had, on one occasion, been intensely occupied, and when walking out the lamp-posts appeared as trees, and the passing men and women looked like moving shrubs.

Now, in any of these cases, had the belief existed in the reality of such illusions, it would have constituted an hallucination, and this hallucination being present, being believed, and being acted upon, would present a true case of insanity, for insanity consists in confounding idealities with realities; so that a person who, although conscious of the appearance of spectres or illusions, knows them to be false, is not insane, but if he mistake them for realities, and believes them, there is most unquestionably an error in judgment.—(Read the extraordinary case of Nicolai, of Berlin, in 1799. See "Nicholson's Journal of Arts," &c., vol. vi., p. 161; also Dr. Bostock's "Illusion": see his work on Physiology.)

A person who wakes up from his delirium knows his delusion, and, by comparing what he supposed to exist with that which actually does exist, he proves the verity of his sanity; but should he persist in believing his delusion or hallucination, and cannot compare what is false with what is true, his judgment is gone—he is insane; and it is a proof a man is *not* insane if he can correct himself and perceive his error, however absurd or foolish such error may have been.

A man the subject of hallucination believes in a false fact, so that he reasons or acts upon false premises; it is true an hallucination may occasionally coincidentally represent an actual fact, but this is merely an accidental circumstance, and proves only the exception.

Some have drawn a distinction between illusion and hallucination: the former being evidenced as when a person declares he sees a demon; the latter where he *believes* he hears him, or again, where he imagines supernatural agents are plotting against him—the one representing a physical error, the other a metaphysical—illusion being caused by the false perception of objects, while hallucination is rather the result of conception, or an error of imagination. However, I consider those persons who see illusions and believe in them hold an hallucination; it is true this may not render such a person unfit for many services to which he may be called, but still it indicates a weak mind, and shows the judgment to be weak upon that particular point.

In fevers there are often ocular illusions, they, however, generally disappear on the remission of the febrile symptoms; but to enter upon this point would exceed our present limits. Although it will be more fully entered into subsequently, yet it would not be right to leave this subject without stating, that whenever the hallucination has a dangerous tendency, as where whisperings are heard and instigations to commit any injury or crime, the most efficient and prompt precautions must be resorted to: for the man who fancies he hears whisperings acts under an hallucination, and, if the supposed communication is of a destructive character, the most dangerous consequences may be anticipated, and should consequently be guarded against.

Spectral illusions generally arise from some irregularity of the circulation in the brain, or even sometimes from an affection of the eye itself; they occasionally occur from the mere effects of a morbid or extravagant imagination, being involuntarily

forced upon an individual; and they have, in some rare instances, been actually under control, being also produced at pleasure. Although illusions are comparatively rare in persons awake, and especially by day, yet the very same effects are exceedingly common in those who dream, or who are at all somnambulistic. The illusions may often be traced to a physical cause, as exemplified in Nicolai's case, he having suffered considerable cerebral inconvenience from suppressed hemorrhoids.

Insanity sometimes occurs suddenly without any premonition: the individual makes some very ridiculous statement, and immediately defends it in the most absurd manner, at once exposing his state of mind; the sublime and the grotesque frequently succeeding one another in the most rapid alternations. In other cases insanity may have remained latent for many years, occasionally evidencing its tendency in fickleness, indecision, and eccentric peculiarities, and then some exciting or depressing event at once calls it into action.

Amongst the *causes* may be enumerated constitutional peculiarity or predisposition, temperament, intermarriage—as seen particularly in the aristocracy of France, the children of old and debilitated parents, intoxication—more especially from ardent spirits, an over-stimulating diet, intemperance of every sort.

Blows or falls, injuries to the head, inflammation of the brain or its membranes, fevers, severe mental exertion, especially in early life.

Love, excesses, sensuality, the depressing passions, premature sexual indulgence, self-abuse, abstinence, syphilis, mercury.

Strong emotions and passions, grief, disappointment, scandal, fright, despondence, heart-ache, despair, misfortunes, sudden changes—whether of elevation or depression, avarice, love of country and home, poverty, destitution, want of sustenance.

Seasons, temperature, climate, summer, intense heat—as in the autumn of 1818 in France, meridian sun, heated rooms, confinement, want of exercise.

Excessive or suppressed evacuations, suppression of habitual discharges or of skin diseases; constipation; gastric, renal, and intestinal irritation; the gastro-entérite of Broussais, worms, hypochondriasis, hysteria, uterine disturbance.

Faulty education, overweening indulgence in childhood, want of self-control, latitudinarian principles—as observed during the French Revolution, erroneous religious opinions, intemperate preaching, political excitement, elections, public calamities, speculations, gambling, reverses.

Insanity is encouraged by whatever is opposed to virtue and favours vice, by whatever debilitates or injures the body, by whatever unduly excites or depresses the mind. Sudden changes are very prejudicial, whether from affluence to woe, from poverty to splendour, or from active life to indolence.

Sometimes after a blow or fall, or reverse of fortune, a person becomes peculiar, and his friends, observing the change, say, "He is quite an altered man." Such a person may accommodate himself to his new position, may recover, or may never grow more eccentric; but sometimes it unfortunately happens that he becomes maniacal or imbecile.

While a sudden shock often causes insanity, it will sometimes cure it where it exists: thus an insane female, who abhorred her family, unexpectedly heard of her son's death in a foreign country—her natural feelings returned, she desired to see her family, and was cured. The same result has also attended blows or falls on the head, and even fever, each of which has occasionally been the means of restoring a lunatic to his senses.

Sudden news has often caused insanity, and it is found that elevation produces worse consequences than depression. Fright may at once induce insanity: a house is on fire, a lady is alarmed, rushes from her bed, and on reaching the street is removed in a state of fatuity.

It has been noticed that the offspring of a mother who has been greatly alarmed during gestation, especially when in the latter months, has often become insane, even where no hereditary predisposition has existed.

Constitutional disturbance and irregularity in

females are a fruitful source of this disease, and determination of blood to the head, however produced, is a very common cause; thus it is that intemperance is so injurious: the spirit actually circulates through the brain, and after death has been not only detected, but actually inflamed by the approach of a candle. Constant inebriation frequently induces delirium tremens.

The weather has a marked influence on man and beast, and it peculiarly affects lunatics: in dull weather they are much more irritable or melancholic than on a fine day in spring. Intense heat is always noticed to cause an increase of lunatics, and a sultry summer greatly excites those predisposed, as well as those actually suffering from insanity.

TABLE SHOWING THE INFLUENCE OF SEASONS.

Months.	1806	1807	1808	1809	1810	1811	1812	1813	1814	Total.
January	18	19	18	13	15	13	22	26	18	162
Feb. ..	23	23	27	26	13	13	15	19	14	173
March	27	27	16	18	22	17	17	27	16	187
April ..	32	24	15	27	19	13	28	20	18	196
May ..	26	27	23	26	34	30	29	31	17	243
June ..	32	28	33	31	22	18	32	26	29	251
July ..	23	37	21	39	34	24	37	21	29	265
August	20	23	25	32	21	19	29	25	45	239
Sept. ....	21	24	21	25	16	25	23	26	25	206
October	23	24	16	17	18	18	23	23	26	197
Nov. ..	23	21	23	27	28	16	16	19	25	198
Dec. ..	24	19	14	18	18	23	20	25	30	191
Total .	292	296	252	299	260	229	301	297	292	2,475

*Esquirol. Dict. des Sc. Med., p. 166.*

This table shows that the greatest proportion of cases occur in May, June, July, and August; there is then a decrease from September to December, and a further diminution in January, February, and March.

Insanity rarely occurs before the fourteenth or fifteenth year, but becomes very common as the age of puberty approaches; the system being then so much excited.

*Abstract of Cases during ten years at the Bicêtre.*

TABLE OF AGES.

MEN.

Years.	15	20	30	40	50	60	Total.
1784	5	33	31	24	11	6	110
1785	4	29	49	25	14	3	134
1786	4	31	40	32	15	5	127
1787	12	39	41	26	17	7	142
1788	9	43	53	21	18	7	151
1789	6	38	39	33	14	2	132
1790	6	23	34	19	9	7	103
1791	9	26	32	16	7	3	93
1792	6	26	33	18	12	3	98
1793	4	36	28	22	13	10	113
Total..	65	329	380	236	130	53	1,203

*Abstract of Cases made at the Salpêtrière during four years.*

WOMEN.

Years.	20	25	30	35	40	50	60	70	80	Total.
1811	34	37	38	27	48	38	24	12	4	262
1812	52	34	33	18	38	57	26	19	3	280
1813	43	29	33	41	32	57	31	13	6	285
1814	42	35	38	31	26	53	34	22	10	291
Total..	171	135	142	117	144	205	115	66	23	1,118

*Abstract of M. Esquirol's own Establishment. Private and rich Patients.*

86	64	43	35	30	46	15	5	3	327
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P. 170, *Dict. des. Sc. Med.*

In these tables it will be observed that some ages are more favourable to the development of insanity than others; it is most common from twenty-five to thirty-five in both sexes, and in every condition of life it then diminishes, and then increases again from fifty to sixty. More females are attacked before twenty than males, and the educated classes are more subject to early insanity than the poor; and amongst M. Esquirol's private patients, more than a fourth part were attacked before twenty years of age. In France more females are insane than males, formerly it was the reverse; it is to be attributed to the vices of education, the precocity of romance reading, intrigue, and abuses and excesses



of every kind, with a total absence of anything like profitable and healthy occupation.

Insanity is much more common than is generally supposed, or than statistical tables would lead us to infer, the fact being that so many incipient cases are cured in private practice, of which no notice whatever is taken; and hence the various tables of cures, which are published, do not represent the number of actual recoveries of the whole of those attacked with insanity, but only the convalescence of those who have come under the cognizance of the commissioners, or of those actually received at the various asylums, many of which cases have been continuing one, two, or three months previous to admission. Bearing this in mind, and also remembering the various restrictions of admission into the different hospitals and asylums, we shall be better prepared to judge of the relative value of such statistics. There can be no doubt that the most accurate way of fully investigating the subject is to include the number of lunatics in a whole country, rather than investigating the details of a particular district; and it is to be hoped that the new commissioners, availing themselves of the facilities placed at their control by the new act, will within a few months be able to publish a most complete statistical account of everything connected with the insane throughout the whole of England.

We learn from a work recently published by Dr. Thurnham, that reports have heretofore been *purposely falsified*; for instance, in the York Lunatic Asylum, previously to 1814, only 221 deaths were officially reported, whereas 365 persons had actually died, so that 144 deaths had been suppressed; by which means the annual rate of mortality was reduced, while the number of cures was augmented, as it is presumed that these concealed deaths were added to the recoveries, so that a double fraud was thus effected. It is worthy of remark that two sets of books were kept, the one by the apothecary, the other by the steward, and these were so arranged as to tally!

(To be continued.)

## A COMPARATIVE VIEW OF THE HEART AND OTHER ORGANS.

By W. H. BROWN, M.D., F.L.S., &c.

### PAPER I. THE HEART.

I do not know any graver fault in medical instruction than the giving a strictly distinctive character to all its branches, apparently so generally aimed at by those who impart it. If Physiology, for instance, ever relax its starch in favour of a chemical hint, it immediately bridles itself up with the observation, "But that you'll get elsewhere," delivered with a significance that very plainly says "for all it's worth." I am, indeed, sometimes inclined to think that the very opposite of this, that is to say, the talking about everything but the subject, would be productive of better effect. The present system is not calculated to make the mass of pupils students, because it sends them from dry detail to dry detail, over which, in the abstract, the mind soon wearies, but with which in connection it could never pall. Nor is it calculated to make complete practitioners, but either men who can "make out" what they can't "write for," or who can "write for" what they can't "make out." The real grandeur of medical science must consist in the *unity*, not in the *plurality*, of its parts.

To give a humble application to these observations: what interest would attach to an anatomical course if the lecturer briefly traced up each part of the divine mechanism before he proceeded to describe it in all its own distraction of nomenclature! How much, too, would this be calculated to expand the student's mind both as that of a philosopher and a Christian!

The purpose of the present papers is, in some measure, to supply the deficiency just instanced. They do not pretend to the profound but to the elementary. They simply propose to sketch an outline which the student (to whom they are expressly addressed) may fill up in the delightful progress of his ennobling study. As has been premised, my present object is to trace the circulation,

and the apparatus whereby it is effected, from what one may denominate its origin in the animal kingdom, through its various stages of development, to its perfection in ourselves.

### SUB-KINGDOM—RADIATA.

In *Porifera*, or the sponge tribe, the element in which they live, and which, of course, is stored with matter nutrient to their bodies, constantly circulating through them—these bodies, moreover, being of uniform composition, and this of the lowest possible degree of vitality—we find nothing analogous to sanguineous fluid; and of course, therefore, no trace of a circulatory apparatus.

In *Polypifera*, or the polype tribe, the liquefied or digested matter in the capacious stomach passes by endosmosis into the body of the animal, and permeates, apparently, between the cellules of its structure. This is merely a higher form of vegetable circulation than we found in *porifera*.

In *Acalephæ*, or the sea-nettle tribe, the medusa has a number of tubular prolongations given off from its globular stomach, which ramify at the margin of the mantle, and there aerify the product of digestion conveyed into them direct from the stomach. This obviously has but very slender claims to be denominated a circulating system. In the *beroe*, however, the claim is better established, since the digestive fluid seems to be absorbed from the alimentary canal, through a series of vessels which convey it for aëration to the cilia on its surface. As yet, however, we have no motor centre.

In *Echinodermata*, or the star-fish tribe, the asterias (star-fish) has a vessel in each ray above the intestine, which receives the capillaries and transmits their contents (sanguineous fluid and, doubtless, absorbed chyle) to a vascular ring around the base of the stomach, from which a vertical pulsating vessel—a very rudimentary heart—conveys it to a similar ring around the mouth, whence it is distributed through a series of vessels to all parts of the system. It is aerated in its transit through the capillaries (the connection between the arterial and venous of which is not yet made out) by a constant current of water which laves the radial prolongations of the digestive tube. In *echinus* (the sea-egg fish) we find a little advance on this simple type, inasmuch as the capillaries surrounding the digestive canal (which goes straight through the animal) anastomose into one vein which runs to the peritoneum or lining membrane of the shell, and there split again into capillaries in which the blood is purified by the constant current of water passing over them; these collect and transmit their blood to a posterior vascular circle (as in the former case) whence it passes through a longitudinal vessel to an oval canal at the opposite extremity, the contractions of which distribute it to every part of the system, and so complete the circulation.

### SUB-KINGDOM—ARTICULATA.

In *Annelida*, or the earthworm tribe, we have as a type a long pulsating dorsal vessel transmitting the blood towards the head, at its anterior extremity seven or eight moniliform (bead-shaped) vessels pass off at right angles around the intestine, and convey a portion of the blood to the ventral vessel which supplies the deep portions of the organism, whilst another portion of the blood of the dorsal vessel is given off by numerous anastomoses at its extremity to a second ventral vessel, more superficial than the first, named the sub-ganglionic vessel, which gives off branches at every segment of the animal that split into numerous capillaries on the skin, and both nourish it and aerate the blood; the minute vessels of this and the ventral eventually return their blood to the dorsal, or heart, to commence its course anew.

In *Insecta*, save a pulsating dorsal vessel, we have no distinct circulating apparatus evolved. This dorsal vessel is divided into several compartments by valves which open forwards (towards the head) only; it likewise has in each compartment two slits protected by valves, opening, of course, inwards. At each contraction of this vessel, then, the contained blood passes from one compartment to another, whence it is prevented from regurgitating by the valve which separates them; it leaves the vessel at its anterior extremity to diffuse itself gene-

rally through the tissues of the body, where, these tissues being penetrated in all directions by tracheæ or air tubes, its whole mass is aerated. The nutrient matter which exudes through the stomach now mixes with it, and at every dilatation of the dorsal vessel passes through the slits in its side, whence its return is prevented by the valves already spoken of, and so recommences the course just described. It is obvious that the whole of the blood of insects must be arterial.

In *Arachnida*, or the spider tribe, that is those only who breathe by air-sacs or pulmo-branchiæ (gill-like lungs), we have an advance on the system of insects, inasmuch as the blood is conveyed to the system from the compartmented dorsal vessel through distinct arteries, and collected again into certain sinuses to be distributed to the pulmo-branchiæ for aëration, whence it is returned to the dorsal vessel or heart by several large canals. This is more a sketch of a system than a developed one.

In *Crustacea*, or the crab tribe, we get for the first time a centralized sacculated organ to which the term heart does not seem so unappropriately to apply as to the pulsating dorsal vessel. This organ gives off four principal branches, namely, one to supply the stomach and adjacent parts; a second to supply the caudal extremity; a third, or hepatic, to supply the liver; and a fourth, or sternal, which passes to the ventral surface and there divides into an abdominal or descending, and a crural or ascending, branch, which latter likewise distributes vessels to the branchiæ. The blood, after being aerated, is transmitted by branchial veins to a broad, flat sinus, situated over the heart, whence it is conveyed by several vessels which open by valves that effectually prevent regurgitation into the heart. The blood which has circulated through the system is received into numerous sinuses similar to the dorsal, which freely communicate together and with it, so that this is, as it were, both a branchial and systemic auricle or receptacle, and contains blood of mixed purity which it forwards to the heart.

### SUB-KINGDOM—MOLLUSCA.

In *Tunicata*, or the marine phosphorescent tribe, we acquire a part not hitherto presented, namely, a pericardium. The order of the circulation in this class appears to be from the heart (a delicate, elongated, contractile tube) through an aorta to the system at large, in the direction of the intestine; whence it is collected by several vessels that disperse it through the capillaries of the lining membrane (peritoneum) of the cavity in which the animal may be said to dwell, where it is duly acted upon by the water constantly passing over it, and finally transmitted to the anterior extremity of the heart, whence we commenced to trace it. This is a somewhat similar plan of circulation to that of the *echinus*, already given.

In *Conchifera*, or the oyster tribe, we find the blood received from the gills by several large branches conveyed by two trunks into an auricle (now, and through the succeeding classes, properly so called), which, contracting, forces the blood through two short vessels to the ventricle (to which the observation on the auricle equally applies), the contraction of which sends it to every part of the system, whence venous channels collect it and distribute it to the gills. The auricle is formed of very delicate muscular fibres, the ventricle of more powerful ones.

In *Gasteropoda*, or the snail tribe, a very similar system pertains to what we had presented in the last class. The blood passes from the air chamber or gill, where it has been renovated, to the auricle, thence to the ventricle (these two compartments are in juxtaposition here, and are enveloped by a pericardium), and through an aorta to the body generally, whence venous canals convey it to the air chamber or gill, as the habit of the animal may be aquatic or terrestrial.

In *Pteropoda*, or the elio-borealis tribe, the order of the circulation is not so distinctly made out as in the preceding classes. The heart, however, consisting of an auricle and a ventricle, and giving off an aorta, is distinctly visible in its pericardium.

In *Cephalopoda*, the cuttle-fish tribe, we find this advance on all preceding systems, namely, that there is a distinct propelling organ for the disper-



sion of the blood through the gills. The circulatory apparatus consists of a branchial ventricle and auricle on either side, and a systemic ventricle in the centre: the outlets and inlets of which are duly protected by valves. The blood, then, having passed through the system, is propelled by each ventricle into the gills, from which it returns into the auricle, whence it is forwarded to the systemic ventricle to be distributed to the organism. The systemic ventricle is a strong muscular cavity with carnea columnæ projecting into its interior.

#### SUB-KINGDOM—VERTEBRATA.

In the class *Pisces*, or fishes, the heart contained in the pericardium consists of two cavities: an auricle (the largest of the two), which receives the blood from the system; and a more muscular ventricle, which sends off a vessel to each branchial arch. This is, therefore, a branchial heart. The blood, having been aërated in the gills, passes from vessel to vessel of greater calibre, until these merge into one, an aorta, which, unaided by any pulsating chamber, transmits it to the body generally. A strong mitral valve guards the passage into the ventricle, as do very efficient valves the entrance into the auricle

and out of the ventricle. On the return of the blood to the heart we find it eliminating the bile and the urine.

In *Reptilia* we make a great advance towards perfect development, inasmuch as the heart consists in this class of a muscular ventricle which is both systemic and pulmonary, with a membranous auricle on either side—that on the right systemic, that on the left pulmonary. The blood passes from the ventricle by an aorta which shortly divides into two branches, and in its course becomes one again, to the system generally, and to the lungs by a pulmonary artery, which immediately at its origin sends off a trunk to each lung. That which has been renovated returns by the pulmonary veins to the left auricle; that which has been deteriorated, by the venæ cavæ to the right auricle. So that, as far as the reception or return of the blood is concerned, we have a double circulation. Both auricles, however, open into one ventricle (which openings are admirably protected by valves) and here become mixed. In some of the higher families a septum divides the ventricle more or less perfectly into two chambers; where this is

complete, however, the two systems of vessels communicate by large branches with each other, so that mixed blood is still supplied to the body.

*Avis* and *Mammalia*.—We have now arrived at those classes in which the circulatory apparatus manifests its highest development: where there are two separate and distinct circulations connected only in their ultimate ramifications; where there are virtually two hearts or organs of reception and propulsion (really so in the dugong, one of the whale species), each consisting of an auricle and a ventricle—that on the right side receiving blood from the system by the venæ cavæ, and conveying it to the lungs for purification by the pulmonary artery; that on the left side receiving it when purified through the pulmonary veins, and distributing it to the whole economy by the aorta. For economy of material these two hearts are combined into one organ, save in the instance adduced.

From this brief and imperfect survey of the perfecting of the circulatory apparatus (if the expression be allowable), one might prepare the following scheme or table:—

CLASSES.		GENERAL PARTICULARS.										ADVANCE.
KINGDOM ANIMALIA.	Sub-kingdom Radiata.	Porifera ..	..	..	..	..	..	..	..	..	..	Circulation of medium.
		Polypifera ..	..	..	..	..	..	..	..	..	..	.. digested matter.
		Aculephæ ..	..	..	..	..	..	..	..	..	..	.. through vessels.
		Echinodermata ..	..	..	..	..	..	..	..	..	..	Blood. Vertical pulsating tube.
	Sub-kingdom Articulate.	Annelida ..	..	..	..	..	..	..	..	..	..	Dorsal pulsating tube.
		Insecta ..	..	..	..	..	..	..	..	..	..	Compartmented tube.
		Arachnida ..	..	..	..	..	..	..	..	..	..	Fewer compartmented.
		Crustacea ..	..	..	..	..	..	..	..	..	..	Ventricle. Vessels.
	Sub-kingdom Mollusca.	Tunicata ..	..	..	..	..	..	..	..	..	..	Pericardium.
		Conchifera ..	..	..	..	..	..	..	..	..	..	Auricle and ventricle.
		Gasteropoda ..	..	..	..	..	..	..	..	..	..	Aur. and vent. close together, in pericardium.
		Pteropoda ..	..	..	..	..	..	..	..	..	..	..
	Sub-kingdom Vertebrata.	Cephalopoda ..	..	..	..	..	..	..	..	..	..	Branchial ventricles.
		Pisces ..	..	..	..	..	..	..	..	..	..	Portal circulation. Lacteals.
		Reptilia ..	..	..	..	..	..	..	..	..	..	Pulmonary auricle and systemic auricle distinct.
		Aves ..	..	..	..	..	..	..	..	..	..	Complete double circulation.
		Mammalia ..	..	..	..	..	..	..	..	..	..	..

In apology for the adoption of a very simple classification, and the omission of mention of one or two classes altogether—the order of the circulation in which is not yet clearly settled—I must reiterate that this paper is simply intended as an elementary compilation. And this will have to be urged for all under the same heading that may succeed it.

#### ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARKWICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Veneral Hospital, Paris, &c.

#### ON THE FUNCTIONS OF THE PANCREAS, AND ON ITS INFLUENCE ON THE DIGESTION OF FECULENT MATTERS.

(Continued from p. 65.)

The very small proportion of pancreatic juice we were able to obtain would have limited our researches, had we not discovered a simple means of procuring a larger quantity of the active principle secreted by this gland. For this purpose we took the pancreas of the goose, after separating, by a very careful dissection, the principal bloodvessels, and removing the blood by which it might be soiled, and ascertained that the liquid with which it is gorged restored the blue colour of reddened litmus paper.

A few small pieces of the pancreas were intimately mixed with fecula jelly that was still warm and very consistent; in a few minutes this jelly became converted into a liquid free from viscosity.

We performed a similar experiment with portions of several other organs. The results were as follows:—With the tissue of the liver, no sign of liquefaction; with the tongue, still impregnated with viscid salivary matter, scarcely any action; with the sublingual glands, a still weaker action, but still evident.

If the pancreas be placed in its weight of water and then pressed, a liquid is obtained which has very considerable dissolving powers. By several precipitations by alcohol and alternate solutions in water, as in the operation for the preparation and purification of the diastase from barley, we also obtain a flocculent precipitate which, when rapidly dried, possesses a very energetic solvent property.

We imagined that it would be easier to obtain a greater proportion of pancreatic juice by choosing a larger animal, which digests feculent matters easily. We therefore took an adult strong-made male rabbit, but the pancreas was surrounded by such an immense mass of fat that it was impossible for us to expose the pancreatic duct. However, we separated the pancreas, and ascertained the very remarkable solvent action which a few fragments of this organ exercised on starch jelly. Three hours afterwards we found that the starch had been converted into dextrine and glucose.

In the rabbit the pancreas is proportionately much smaller than in the birds we have examined; this difference agrees exactly with the results published in our memoirs on the digestion of feculent substances. In fact we have seen that it was not uncommon to recover the fecula in the excrementitious matters contained in the rectum. The immense ileo-cæcal appendix with which these animals are provided allows the food to remain much longer in the digestive apparatus. An energetic and abundant solvent fluid is, therefore, less necessary than in birds, which have a much more limited intestinal canal.

We endeavoured to procure the pancreatic juice of the dog. De Graaf, Gmelin, and Tiedemann have obtained a considerable portion of it. In our first attempts we were not so fortunate; we propose, however, to commence a second time, in an extended form, by continuing the experiments we have already instituted relative to the extirpation of this organ, under the impression that these

animals, thus mutilated, may become after their restoration affected with diabetes.

The pancreas of the dog, mixed with starch jelly, liquefies it and transforms it into dextrine and glucose.

We have also proved that the human pancreas possessed, thirty hours after death, a very powerful solvent action. By the process already described we were able to extract from it diastase possessing great power of solution.

It was highly necessary for us to examine with the greatest care the organs that secrete the diastasic liquid in those animals, which have to a very great extent the power of digesting feculent substances. In our memoir on the digestion of these matters, we have stated that in pigeons the grains of fecula disappear before the termination of the small intestines. If the abdomen of these birds be opened, a largely developed double pancreas is immediately perceived, lodged in the intestinal loop formed by the first part of the small intestines. We were unable to collect directly the pancreatic juice, for the too numerous and too delicate canals open from the pancreas into the intestine; but we carefully examined the pancreas itself; the liquid present in the duodenum of pigeons during fasting (and which contains a notable proportion of pancreatic fluid); the contents of the stomach and of the crop, and the muciparous salivary glands, &c.

The pancreas was most carefully dissected, in order to separate as much as possible the numerous afferent and efferent bloodvessels. The tissue of the gland, impregnated with its secretion, restores the blue colour of reddened litmus paper; and when a few chopped pieces of it are added to very solid starch jelly, still warm, an almost immediate and considerable liquefaction is observed to take place. If this chopped fresh pancreas be mixed with double the quantity of water, a liquid possessed of very remarkable solvent powers will be obtained, by expression and filtration, after six hours' maceration. To extract the diastase from



this liquid, we thought of employing heat to get rid of the albumen, as M. Payen did for the maceration of germinated barley; but on being exposed to a temperature not exceeding 75 deg., and which was probably continued for too long a time, the liquid became very considerably reduced in strength. In order, therefore, to extract the diastase from it, it is absolutely necessary to confine oneself to the alternate employment of precipitations by means of strong alcohol and repeated solutions.

The liquid contained in the stomach of pigeons has scarcely any solvent action on feculent substances; neither has that enclosed in the crop; but we obtained a much more evident liquefaction with the mucous membrane from the isthmus of the fauces, which, as is well known, is perforated by numerous follicles impregnated with a viscid fluid.

The semi-fluid paste contained in the duodenum, when added to starch jelly, immediately dissolves it, with the formation of dextrine and glucose.

If this paste be diluted with water, and filtered, a liquid of a greenish yellow colour, owing to the presence of bile, will be obtained, having a solvent action, and from which diastase may be precipitated in tolerable quantity by pure alcohol. By repeated solution and precipitation, diastase of a very considerable solvent power is procured.

Is the principle thus prepared exactly identical with that extracted from germinated barley? It is difficult to answer this question, inasmuch as the specific power is modified by so many circumstances; and, moreover, it appears scarcely possible to completely separate all the matters that are associated with the diastase in this mixture of liquids, so varied are their composition and properties. One might, however, imagine the power of the solvent principle contained in the pancreatic juice to vary according to the nature of the animals, and to be more energetic in those where a quickness of solution is a necessary condition of existence, in consequence of the narrowness of the intestinal canal.

These circumstances are found combined in pigeons, which, being destined to cut the air, cannot be loaded with those voluminous folds of the digestive canal, that are met with in mammiferous animals living on feculent substances. These large reservoirs of the digestive apparatus allow of a more lengthened sojourn and maceration of the food, which, in pigeons, ought to be replaced by the presence of an organ which secretes a more abundant and more energetic solvent liquid. The large size of the pancreas and the smallness of the intestinal canal form one of those admirable harmonies, the existence of which is daily disclosed to us by a profound and attentive study.

We may mention that, here, the solution of raw fecula, and its transformation into dextrine and glucose, is accomplished sufficiently quickly for us to be able to follow its progress with a microscope, and provided that the constant temperature does not exceed 43 or 43.5 centigrade.

From the foregoing facts it may justly be concluded, that the pancreas is the organ which, in animals living on fecula, is principally destined to secrete the liquid (pancreatic juice) containing the principle (diastase) proper for dissolving this kind of food, so as to admit of its absorption and adapt it for certain useful purposes in the animal economy. The functions of this important organ have been hitherto unknown. We have just alluded to one of the greatest interest, but we are far from assuming that this is the only one.

It would be putting a wrong construction on our opinion to say, that the pancreas solely supplies the liquid containing diastase. Lench's observations on the saliva are correct; for this liquid shares this property with the pancreatic juice, and hence Galen's views on the nature of the pancreas become confirmed. In those animals in which we have particularly studied the digestion of raw fecula, as, for instance, birds and the granivori, the saliva plays, to say the least, a very secondary part: it is the pancreatic juice which is almost exclusively destined for dissolving it. We can very well understand that in other animals the saliva may perform a larger part in this phenomenon; but one must have been led by preconceived ideas to say, as it has been said, that the transformation of feculent substances was entirely effected by the saliva.

In our researches on digestion, with which we have been occupied for several years past, we have been less desirous of establishing theories than of performing experiments and drawing from them proper conclusions. By these experiments we have been led entirely to reject the theory of digestion as taught in schools. All food is not converted into chyle, as it is everywhere stated to be. Our experiments have proved to us that the digestion of protein and gelatinous substances—fibrin, albumen, casein, gluten, gelatine, &c.—is principally effected in the stomach; that this dissolved food is immediately absorbed in this organ, and from thence carried into the blood: this is the *stomachal digestion*; that the fatty matters, liquefied by the temperature of the body of the animal, and formed into an emulsion by the bile, are taken up in the intestines by the chyloferous vessels: this is the *intestinal digestion*; that the solution of the feculent matters effected by a principle acting like diastase, secreted principally by the pancreas, commences in the stomach, but is completed more particularly in the intestines, and that the liquid which results is absorbed, not by the chyloferous vessels, but partly by the vessels of the stomach, and to a still greater extent by the finest ramifications of the portal vein: this is the *mixed digestion*.

These results of experiments, that may be easily verified, are far from being admitted by all those who devote their attention to physiology, and who much prefer following the tracks of an easy theory to seeking the truth by repeating experiments. But, as we hope to have discovered important facts, we will persevere in their defence.

[My next communication will refer to the digestion of feculent and saccharine matters and to the part performed by them in nutrition.—TRANS.]  
19, Langham-place.

## HOSPITAL REPORTS.

### UNIVERSITY COLLEGE HOSPITAL.

#### CASE OF COMPOUND FRACTURE OF THE PELVIS, AND RUPTURE OF THE BLADDER.

(Reported by W. E. WRIGHT, Esq., late House-Surgeon to the Hospital.)

John White. Admitted nine P.M., October 7. Under Dr. Liston.

It was stated by the persons who brought him, that he had been knocked down and run over while endeavouring to stop a horse and cart; but the mode in which the accident occurred, and the way in which the force was applied, could not be clearly ascertained. Upon examination he was found pale and cold; pulse very feeble; the clothes about the lower part of his person were saturated with blood (partly venous and partly arterial), which was escaping in considerable quantity from a large gaping wound, an inch and a half long, situated in the left groin; its long axis lay in the direction of Poupart's ligament and over its inner third, and there protruded from it a soft, dark, elastic, shining mass like intestine, but not exactly of the same kind of feel. On introducing the finger this disappeared, and some bubbles of air escaped. The spermatic cord was seen crossing the opening obliquely, and the finger readily passed upwards along the inguinal canal, and also downwards to the pubes, the horizontal and descending ramus of which were felt to be fractured; there was considerable swelling of the soft parts in the groin; the scrotum was lacerated, and the testicle of that side completely denuded. Some brandy and opium were administered; he was enveloped in blankets; one suture was put in the groin and three more in the scrotum, and over all a T bandage. A catheter was introduced, but only a small quantity of bloody urine escaped, although he had not made water for five hours previously. He is perfectly sensible, can use his limbs, and complains only of pain in the left groin and thigh. After a little while his surface became warm and his pulse improved, and he had some sleep during the night.

Oct. 8, nine A.M.—He attempted to pass urine, but only a little came away, and immediately he felt a darting burning pain of the belly, commencing at

the lower part and afterwards extending all over it, with great tenderness; his legs were drawn up; countenance anxious; pulse quick and feeble; copious sweating. Ordered hot flannels; cal. gr. iij., opii. gr.  $\frac{1}{2}$ , statim, et empl. lyttæ abdomen. Was desired not to again attempt making water, and a catheter was passed.

Two P.M. Abdomen still very tender and painful, but no tympanitic distention. A catheter would not pass into the bladder, but seemed to stop as if the viscus were closely contracted; no urine flowed, but only about a tea-spoonful of bloody fluid. Mr. Liston saw him, ordered the blister to be removed, introduced an elastic catheter (which did not seem to get further than the prostate), and tied it in; no urine flowed; surface very pale and cold; face anxious; pulse exceedingly feeble, and not to be counted. He continued gradually getting worse until two A.M., when he died.

*Autopsy twelve hours after Death.*—An incision extending along the front of abdomen, penis, and side of scrotum to verge of the anus, exposed the belly and pelvis; the peritoneal cavity was found to contain a yellowish, slightly turbid fluid; the membrane itself was injected and ecchymosed in parts, both over the intestines and abdominal parietes; there were shreds of soft lymph, some broken up and floating in the fluid, others causing slight adhesions of the intestines; some stronger adhesions existed between the bladder and colon; the peritoneum opposite the external wound was uninjured and the intestines were not protruded; the bladder had a ragged oblique opening, about three quarters of an inch long in its upper and posterior part, was contracted, and only contained a small quantity of a dark-looking fluid, seemingly a mixture of pus and blood. The urethra was healthy and uninjured; there was a large effusion of blood into the cellular tissue of the groin and coverings of the cord along its whole length on the left side; opposite the external wound there was an oblique fracture of the horizontal ramus of the pubis, the bone a good deal splintered; the descending ramus of the same bone was broken, also the ascending one of the ischium, so that there were three fractures extending into the thyroid foramen; of the soft parts around, some were much lacerated, others stretched from the wide separation of the bones. The obturator nerve was tightly on the stretch, and its branches sent to the adductor muscles were clearly dissected; the artery and vein of the same name were torn, as also the deep external pudic; the femoral trunks were uninjured, though several veins going to the femoral at the saphenous opening were lacerated; there was a considerable effusion of blood in the cellular tissue behind the rectum, near the left sacroiliac synchondrosis, which was partly separated.

### MEDICAL TIMES PRIZE REPORTS.

#### THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

#### SURGICAL CASES.

(Continued from p. 72.)

##### TUMOURS OF THE BREAST.

CASE 1.—Sophia Mellish, aged 53, servant. Admitted Aug. 27, 1845. Under Mr. Hawkins.

There is a large ulcerating tumour, of a purple colour, including the whole of the right mamma; there is much discoloration and induration extending for some distance around.

She is a pale-looking woman, and seems much out of health.

[Six months ago she first perceived a small hard tumour in the right breast, near the nipple; this rapidly increased in size; it first became red, and then changed to a purple hue; it began to ulcerate three weeks ago, and she lost a considerable quantity of blood from it on the night of the 26th ult. Glands in axilla enlarged.

Rx. Tinct. opii, 3 ij.; lotio plumbi, 3 xij. fiat lotio. 29. Somewhat relieved by the lotion; skin cool; pulse full.

Sept. 3. Discharged incurable.

CASE 2.—Sarah Easey, aged 46. Admitted April 30, 1845. Under Mr. Hawkins.

Situated slightly to the external side of the left



mamma there is a moveable tumour of considerable size, with no retraction of the nipple, and none of the glands in the neighbourhood are enlarged. The tumour is about the size of a large orange; the surface is irregular; it is hard over the greater part, and in others is soft, as if containing fluid. The skin does not appear to be at all attached to the tumour.

Last June she perceived some fulness and tenderness of left breast, and a tumour formed in it as large as a marble. Since that time it increased gradually, but during the winter it became more prominent, and made very rapid progress. She occasionally suffers sharp pricking pain in it. The catamenia are regular, but since the formation of the tumour she has menstruated much more copiously than formerly, and always suffers more pain in the breast when the catamenia are present. She is exceedingly stout, and perspires a great deal. General health good.

May 1. Cannot sleep well at night; breast somewhat painful last night. Lot. plumbi. tepid. app. mammae.

2. Feels easier to-day. Porter, half-pint.

3. Catamenia adsunt; breast not more painful.

6. Sleeps well; has no pain; bowels confined.

Rx. Ext. colocynth. c., gr. v.

8. One P.M. Operation. The tumour was cut into, and it proved to be one of the sero-cystic kind: it consisted of one large cyst of irregular shape, containing a gelatinous fluid; this was removed, together with the nipple, and on examination after this several other small cysts were discovered, which were also removed. There was a good deal of hemorrhage at the time of the operation, and several vessels required ligatures. Two sutures were applied, and some lint interposed between the edges of the wound in the centre; some strips of adhesive plaister and a bandage were then applied, and the patient sent to bed.

Four P.M. Tinct. opii. m., xx.

Vespere. Has been dozing, is occasionally very restless; tongue moist; pulse quick; face flushed.

Rx. Haust. salini, 3jss.; vin. antim. pot. tart., m. x. 4tis horis.

9. Skin moist; countenance flushed; did not sleep till three A.M., when she dozed for about two hours; pulse 104, irritable; bowels have not acted since yesterday morning; dressings removed; there is some slight serous oozing from wound; simple dressing was applied to the wound, and this covered with warm-water dressing under oil silk.

Adde haust. potass. nitrat., gr. x.

10. Pulse not so frequent to-day, but the face is more flushed; slept a little during the night; bowels confined; wound dressed in the same manner as yesterday, with the exception of the simple dressing, which was omitted; there is a little redness around the wound, and the discharge is scanty, thin, and sanious. Sutures removed.

Rx. Hydrarg. chloridi, gr. iij. h.n.; haust. sennæ, 3jss. cras mane.

11. Redness has extended as far as the other breast, but not so much towards the axilla; there is an abundant thin and dark-coloured discharge; green dressing to wound, and warm-water dressing as before; there is less fever to-day, and the bowels are open very frequently. Beef-tea.

Rep. mist. bis die.

Ten P.M. Has had shooting pain in the breast during the afternoon, but is easier now; pulse 100, weak; tongue loaded and moist; she has great thirst, and is very low and weak; feels nervous and frightened.

12. Pulse 112, weak and sharp; had no sleep last night; tongue somewhat cleaner; redness much increased; skin appears as if it would slough; discharge dark-coloured and rather fetid. Some punctures were made to relieve the congestion of the breast; some lotio sodæ chlorinatæ was syringed into the wound, and the whole covered by a camomile poultice. To have two pints of strong beef-tea and a mutton chop, three eggs, vini rubri 3ij. ex aqua quotidie.

Rx. Mist. ætheris c., 3j.; tinct. opii m., xv.

Rx. Ammon. carb., gr. vj.; tinct. cardam. c., 3j.; mist. camphoræ, 3jss.; tinct. camphoræ, c., m. xv. 6tis horis.

13. Has occasional shooting pain in the centre of breast, but has felt great relief from the camomile poultice, and has passed a much better night; pulse 112; softer; tongue rather brown; has occasional dizziness in head. There is no redness now between the breasts, but it is darker and more livid over the breast itself, with some dark gangrenous spots over it; bowels not open. Aug. vin. rub. ad 3vij.

14. Slept well all night; feels dizzy occasionally; gangrene is now extending over the skin of the breast; a quantity of bloody serum was evacuated from a large bulla which had formed on the external surface of the breast; bowels not open; pulse 112; tongue rather brown, moist. Aug. vin. ad 3xij. Aug. in haust. tinct. camph. e. ad m. xx.; tinct. opii m. xxx. nocte.

15. Slept easier last night; bowels not open since the 12th; tongue cleaner. Cuticle separated from two-thirds of the breast; two incisions were made through the gangrenous parts, and some small sloughs evacuated; one ligature removed; poultice left off, and breast dressed as before with warm-water dressing. Inject. commun.

16. Tongue cleaner; bowels acted after the injection yesterday, but she did not sleep well. Two ligatures and a few superficial sloughs were removed; two small incisions were made in the external part of breast; fat beneath the gangrenous skin appears healthy.

Six P.M. Has suffered great pain in the breast since it was dressed at one P.M.

Rx. Haust. opiat., 3j. stat.

17, four A.M. Rx. Haust. opiat., 3j.

One P.M. Tongue clean; pulse 108, soft and weak; face very much flushed; gangrenous parts of breast very fetid; wound cleaning, dressed with green dressing; perspires a great deal.

18. Did not sleep well last night; perspires less; tongue clean; pulse 104, soft; bowels rather relaxed this morning. All the remaining ligatures removed; green dressing. Aug. vin. ad 3xvj. Ale.

19. Tongue clean, but rather dry; pulse 96, very weak; has been perspiring freely for some time; passed a very restless night, and was slightly delirious.

At nine P.M. last night she took H. morphinæ, 3j., and repeated it at two A.M. Wound dressed with dry lint.

20. Pulse 98, soft; perspires less; slept better last night, but talked a great deal during her sleep; breast feels easier; complained this morning of a pain in the right side of the chest, which still continues. Catap. sinapis lat. thor. dext. to be left on for ten minutes. Bowels well opened yesterday; wound cleaning, dressed with dry lint.

21. Had two mustard poultices on yesterday, as the first did not relieve her; she was a little relieved by them; the pain is now constant and catches her when she breathes; bowels not open yesterday or to-day; tongue moist and clean; surface of wound clean; appetite good.

22. Has a short cough, but the pain in the side is much better; pulse soft; tongue clean; slept pretty well; bowels well open.

23. Tongue pale, rather coated; pain in side has gone; perspires less; pulse 104; wound looks healthy; simple dressing applied, and no adhesive plaister, as this caused a good deal of irritation of the skin.

Rx. Haust. cinchonæ, 3jss.; confect. arom., 3 ss.; tinct. camphor. c., m. xv. bis die.

Rep. haust. opiat.

24. Bowels acted three times yesterday, rather loosely, but have not acted to-day; slept better; still feels a "catch" when she coughs. Catap. anthem.

25. Bowels open three times to-day; did not apply the poultice, as she felt so much better; sat up for an hour to-day.

26. Kept awake by the cough; pulse soft and natural; tongue rather white and moist; sweats

less; bowels open. Vin. rub., 3xij. tantum. Aug. tinct. camph. c. ad 3j. sing. dos.

28. Pulse rather quicker; tongue white; bowels not open since the day before yesterday; looks much better; kept awake by cough. Omit. vin. et haust.

Rx. Haust. cetacci, 3jss.; vin. ipecac., m. xx. 4tis horis.

Wound looks very healthy.

30. Tongue clean; bowels open; pulse rather quick; cough still troublesome; her bowels were open twice yesterday, and there is still a great tendency to diarrhœa.

31. Cough better; slept well; sat up for several hours; bowels open.

June 1. Less cough; pulse still rather quick and weak; bowels not open.

2. Going on very well; feels low; tongue clean; pulse quick. Vin. rub., 3ij.

6. Pulse still frequent and weak; going on very well. Aug. vin. ad 3iv.; lotio rubra to wound.

9. No cough; better in every respect. Aug. vin. ad 3vj.

Rx. Haust. cinchonæ, 3jss.; conf. arom., gr. xv.; ammon. carb., gr. iij. bis die.

13. Wound filling up and contracting slowly; bowels rather costive.

Rx. Tinct. rhei, 3ij.; aq. menthæ pip., 3jss. mane.

14. Bowels well open without taking the draught.

16. The wound seems to be over-stimulated by the red wash. Omit. lot. rub. Water dressing.

20. The wound is cicatrizing round the edges, and also in separate patches on its surface.

30. Bowels regular; tongue white; wound does not look so healthy, the edges are red. Omit. vinum.

Rx. Tinct. rhei, 3ij.; aq. menthæ pip., 3jss. cras et post dies ij.

July 5. Surface of wound more healthy; health good. To be an out-patient.

CASE 3.—Jane Townes, aged 52, married, one child. Admitted Aug. 27, 1845. Under Mr. Hawkins.

There is a tumour in the left mamma as large as a full-sized melon; the skin around is of a light purplish colour, tense in parts, soft in others, with apparent fluctuation and several smooth prominences. This tumour is quite unattached, and there is no neighbouring gland enlarged; superficial veins somewhat enlarged; general health good; she is tall, but not very stout.

Seven years ago, after weaning her child, she perceived a tumour about the size of a walnut at the upper part of the mamma; since then it has increased slowly, with slight occasional pain, and during the last seven months it has increased much more rapidly.

The tumour was punctured in two places four years ago, water coming from one puncture, blood from the other.

28. Ordinary diet. Porter, Oj.

Sept. 1. Catamenia adsunt. To go out for a week.

8. Returned.

9. A puncture was made with a grooved needle in the inferior part of the tumour, and 3vj. of dark reddish brown fluid escaped; it continued discharging a great deal all day, and the tumour became smaller, but it filled again.

11. Operation.—A portion of skin about three inches wide, including the nipple, was removed, together with the tumour; there was very little hemorrhage; the flaps of skin were brought together by strapping, with the exception of the lower angle, where some lint was inserted, in consequence of some fluid having escaped into the cellular tissue when the breast was punctured. The tumour consisted of one large cyst, the mammary gland having been entirely absorbed. The cyst contained about Ojss. of the same dark-coloured fluid which had been let out before by puncture, in which were floating great quantities of flakes of lymph, in colour and appearance resembling a badly-made, thin linsed poultice. Projecting into the cyst were several irregular tumours, fibrous and very vascular; they were situated altogether



in one part, not far from the nipple, and the whole of them in their broadest part measured about two inches across, and about a quarter of an inch in height.

There was some slight secondary hemorrhage after the operation, for which ice was applied, and this stopped it.

12. Passed a tolerably easy night, but without much sleep; is slightly feverish now; has taken some beef-tea. The wound was greatly opened at its upper part after the bandages were cut, and a good deal of bloody serum escaped.

Rx. Haust. salini,  $\bar{z}$ jss.; vin. antimon. pot. tart., m. xv. ter die.

13. Passed a comfortable night; pulse 130, soft; wound dressed, edges brought together by some pieces of strapping placed at intervals, simple dressing over this, and warm-water dressing over the whole. Mutton chop, porter.

14. Omit haust. salin.; pulse soft; wound healthy.

15. Passed a restless night; pulse quick; skin hot; erysipelatous blush around wound; face flushed; green dressing to edges of wound.

16. Discharge bloody and unhealthy; less redness round wound; pulse 120, soft; tongue slightly brown, but moist; face not so much flushed as yesterday. Cat. lini.

17. Did not sleep last night; some pain and redness above the wound. Three ligatures removed to-day.

18. Skin rather hot; pulse 133; discharge unhealthy and rather fetid; there is an erysipelatous blush extending up towards the shoulder and down the side.

Rx. Haust. salin. ammon.  $\bar{z}$ jss.; c. ammon. carb., gr. iij. 6tis horis.

Erysipelas dressing round wound. Vini rubri,  $\bar{z}$ ij. ex aqua.

19. Erysipelas has not extended; passed a good night; water dressing with oil silk.

21. Was attacked during the night with diarrhoea, and about six this morning felt very sick, but has not vomited; pulse quick but irregular; erysipelas has spread a little towards the right side, but not higher towards the shoulder; there is an enlarged gland on the side of the neck which gives her some pain. To have an egg. Omit. h. salin.

Rx. Haust. cinchonæ,  $\bar{z}$ jss.; ammon. carb., gr. v. 6tis horis.

22. Erysipelas has extended round the neck and left shoulder, as far as the spine on the left side, but has not extended on the right; face flushed; skin hot; pulse 136; bowels open; not so much discharge. Omit porter. Vini rub.  $\bar{z}$ vj.

23. Seems rather better; pulse 136; erysipelas has not spread; sleeps better. Beef-tea; arrow-root. Fish diet.

Rx. Hydrargyri chloridi, gr. jss.; opii, gr. ss. h. n.

Rx. Haust. cinchonæ,  $\bar{z}$ jss. ter die.

24. Pulse 120; not so much discharge from wound; green dressing left off, and erysipelas dressing put over the wound; passed a good night.

25. There are one or two sinuses in the outer side of the wound which discharge matter when pressed; pulse 120; bowels relaxed. Rep. pil. hyd. chlor. c. opio.

26. Edges of wound rather flabby; erysipelas has not spread, and she seems better and stronger in health. Adde haust. conf. aromat., gr. xv. sing. dos.

27. Is weak and low-spirited; did not sleep well last night; bowels relaxed; wound looks flabby; erysipelas not spreading. To have some boiled fowl.

Rx. Conf. opiat., gr. v.; mist. eretæ. c.,  $\bar{z}$ jss. p.r.n

28. Diarrhoea abated; better altogether.

29. There is a little pain in the neck, where there is an enlarged gland; appetite good; still low-spirited.

30. Wound healthy; erysipelas has spread up the neck and half over the face on the right side, but is not extending on the back; bowels still relaxed; pulse 128; skin cool; is very weak. Vini rubri, xij.

Oct 2. Erysipelas fading over the chest and

back, but still somewhat increasing over the face; wound healthy; bowels still relaxed, but not quite so much; appetite good. Rep. pil.

4. Sitting up; erysipelas fading everywhere; seems stronger.

6. Wound healthy and cicatrizing at superior part; there is a small sinus at lower part; erysipelas has gone; pulse 104, much stronger.

9. Getting stronger; wound healthy; pulse quiet; skin cool; is in good spirits; cuticle peeling off the face.

13. Wound cicatrizing; health improving.

17. Inner edge of the wound very much inverted, with small cavity beneath it, which is, however, contracting; seems to gain strength.

Rx. Olci ricini,  $\bar{z}$ ss. eras mane.

22. Much better and stronger; wound healing. Made out-patient at her own request.

#### REMARKS.

There are certain parts of the human body more liable to one form of malignant disease than another. Scirrhus is common in the breast, but fungus hæmatodes is rare; whereas, in the testicle, scirrhus is rare, but fungus hæmatodes common. Scirrhus may occur in any organ, but we meet with it more commonly in the female breast than in any other part, the lymphatic glands in the vicinity becoming secondarily affected. It usually commences as a rounded tumour of stony hardness, attended with occasional attacks of severe lancinating pain. At first the tumour is generally indolent and unattended with pain, and the patient may for a long time be ignorant of its existence; at this time, also, it is circumscribed, and freely moveable. In time it becomes affected with these severe fits of pain, gradually increasing in frequency and severity. In the next place it enlarges slowly; it loses its distinctness; it becomes adherent to the skin above and the textures beneath it; finally, portions of it soften down, irregular abscesses are formed, the skin ulcerates, and an open sore is formed. The ulcer enlarges in every direction, the discharge is thin, sanious, and fetid, and accompanied with almost constant burning pain. The ulceration spreads, the neighbouring glands become contaminated, and the patient sinks, worn out with the constant pain and irritation. There are certain constitutional symptoms in addition to these local ones; there is a peculiar state of ill health which is called the cancerous cachexia. The patient is languid and emaciated, with a leaden, sallow complexion, bad appetite, and imperfect digestion. Hectic is induced by pain and exhaustion as the disease advances, and the patient often suffers from the existence of the disease in other organs at the same time. The advanced stage of this disease is well illustrated in the case of Sophia Mellish (case 1). We have here a large ulcerating tumour, including the whole gland; the adjoining tissues are contaminated, and the axillary glands are affected. The tumour was first perceived about six months ago, and no cause was assigned for its appearance. In these cases we very frequently find that the patient attributes the disease to some mechanical injury, commonly a blow; and, no doubt, the blow would cause the disease to develop itself in this particular organ, but then the cancerous diathesis must have been present in the system previously. The treatment in these cases of scirrhus of the breast is the same as in all cases of malignant disease: there is but one course which can give us any hope of permanently stopping its progress, and that is the removal of the whole organ affected; before proceeding to this step, however, there are many things to be considered. In this case it would be decidedly improper for many reasons. In the first place ulceration has taken place, and the skin and neighbouring tissues are affected; there are also some glands in the axilla enlarged, and their strong hardness shows that this enlargement is not from simple irritation, but that some of the poisonous matter exists in their structure. There certainly are cases in which an operation may be justifiable, not for the sake of eradicating the disease, but in order to relieve the sufferings of the patient, which are often very severe. It is, how-

ever, always better to avoid this if possible, for in such a case as the one before us the disease would be almost sure to return in the cicatrix, or even in the wound before the cicatrix had formed, and would then proceed with much greater rapidity than it did before the operation; this unfortunate event may even occur in the most favourable cases, for tubercles are found in the pleura or cancerous deposits in the lungs themselves. There may be no return of the disease in or near the part first affected, and yet it may break out again in some other organ remote from it; the liver, uterus, ovaries, or bones may become affected, or the disease may have been going on in some internal organ even at the time of the operation. The operation, however, is the only certain cure; and, such being the case, if there is a tolerably good chance of success, it should be performed, for I do not consider that we should look to what may happen after this operation, but to that which inevitably will happen if we do not perform it; and it is our duty therefore to give the patient this chance in every favourable case, however poor that chance may be.

In well-marked cases of scirrhus there is no difficulty in forming a correct diagnosis; but there is a softer kind of cancer also occurring in the breast occasionally, and which may be confounded with the sero-cystic tumour. The sero-cystic tumour arises from the obstruction and consequent dilatation of some of the ducts in the breast, and, though small at first, it often attains an enormous size. The case of Sarah Easey is a very good illustration of that kind of disease. There was in this case considerable doubt as to the nature of the tumour; it was hard over its greater part, irregular in form, and soft in places as if containing fluid, but this was very indistinct; it had much the appearance of the softer kind of cancer, and the patient's age rendered the circumstance still more suspicious. The sero-cystic tumour is attended with no immediate danger, and, beyond the inconvenience of its size, it does no harm. The operation of removing the breast in a thin person is neither a dangerous nor a particularly serious operation; but when we meet with a fat patient, in whom the breasts are largely developed, it becomes a very dangerous and really a frightful operation. Easey was anxious to have the breast removed; she had seen a friend sink beneath the agonizing and loathsome form which scirrhus in the breast assumes in its last stage, and dreaded a similar result in herself. In fat persons the operation is necessarily more severe than in thin ones, on account of the size of the wound; but, in addition to this, the tendency to the formation of fat shows a weakness of constitution. Again, in fat persons inflammatory fever is often very quickly followed by low typhoid fever, and therefore we must be very cautious how we deplete this kind of patients. Very frequently there are a number of smaller cysts in the fat and substance of the breast; this was the case with Easey, and they were carefully dissected out. Now, if these smaller cysts had been left they would have increased in size, and probably have become as large as the one which was first removed; their further development having been prevented by the great size of the larger cyst. After the operation some lint was interposed between the edges of the wound in the centre, for serum may be locked up in the wound, and cause cellular inflammation; and, a very small quantity becoming locked up, will often cause very alarming symptoms in a short time: within twelve hours the patient may become delirious, and if the cause be not removed the consequences would be serious. It is therefore better, in fat persons, not to close the wound directly after the operation, to prevent the possibility of such an event. In the case of Easey there was gangrene of the skin; now, when sloughing occurs after the operation for removal of the breast, it usually commences in the cellular tissue, with inflammatory symptoms; but in fat subjects it is likely to commence in the skin, from the want of a proper supply of blood, the vessels having to ramify through the mass of fat before arriving at the skin. There was also another danger to which this patient was liable, viz., secondary deposits, and with so large a wound, in a weak constitution, this was very likely to happen; she had some very



suspicious symptoms, and there was some fear that secondary deposits were about to occur in the lungs, but fortunately she escaped. She left the hospital, and was enabled to join her mistress in Scotland at the beginning of October. In the case of Jane Townes there was not the same doubt with regard to the tumour: the length of time that the tumour had existed, the fact of its being unattached to the surrounding tissues, and no glands in the vicinity being enlarged, would clearly show that the disease was not malignant. There was a curious circumstance in this case: the tumour consisted of one single cyst, and the whole gland had been absorbed in consequence of the pressure caused by it; I do not mean that the absorption of the gland was singular, for even bone itself will suffer in a similar manner, from the same cause; but we seldom meet with a case of this kind in which we find only a single cyst: there may be one large one, but we almost invariably meet several smaller ones ready to develop themselves the moment the large one is removed.

## GLASGOW ROYAL INFIRMARY.

## JAUNDICE—DEATH, AND DISSECTION.

Admitted May 10. Under the care of Dr. Watson (ward 3). David Brodie, aged 35; Scotch; weaver; married.

Patient's skin and conjunctivæ are of a deep yellow colour; stools dark; urine high-coloured, and stains linen yellow; there is tenderness in right hypochondrium, increased on pressure; from this region downwards, as far as umbilicus, sound; yielded by percussion; is very dull; and, when abdominal muscles are relaxed, edge of liver can be felt at this point, firm and equable; has a disagreeable clammy taste in mouth; tongue pretty clean, moist; bowels free; countenance despondent; face thin and sharp; body and limbs somewhat emaciated; feels weak and giddy when out of bed; respirations 22; pulse 72, weak; auscultatory sounds are normal.

Illness commenced three months ago, before which patient enjoyed excellent health. He first found himself dull and indisposed for exertion; then conjunctivæ tinged yellow, and shortly after whole surface. Thinks colour less deep than at beginning. When about 13 years of age was subject to heartburn; but since that period, till a month ago, was perfectly free from it. For a month has been much annoyed with acidity of stomach and flatulence after meals; sometimes with nausea, vomiting, and loathing of food. States that his appetite is nearly as good as when in perfect health. No cause can be assigned for disease. Hab. ol. ricini, 3jss.

17. As at report. Middle diet.

R. Aquæ potass., 3ij.; infus. gentian., 3viiij.; sumat. 3j. 6ta q.q. hor. Omne nocte hab. pil. hydr. et 2nda q.q. mane. Ol. ricini, 3ss. Hab. in dies sp. hordei, 3ij. Applicet. vesicator. epigastr.

19. Thinks himself better; relishes his food; colour deeper; pulse 80. Contr. medicam.

21. Complains of want of sleep. Hab. hor. somni. haust. c. tinct. opii, m. xv. cras mane; ol. ricini, 3j.

22. Still complains of sleeplessness; considers himself much improved, but colour as deep. Augest tinct. opii ad m. xx. Contr. alia.

23. Mouth sore; still considers himself improving, but no change in colour. Omittr. pil. hydr. contr. alia.

25. Again sleepless; bowels loose. Rep. haust. contr. alia.

27. Pulse 80, very feeble; no appetite; feels sick; bowels keep rather open; stools dark. Contr. haustus. omittr. alia. hab. in dies vini rubri, 3vj.

R. Infus. gentian., 3vj.; hydriod. potass., 3j.; sumat in dies. Post 2ndam dejection. hab. euena annodyn. c. tinc. opii, m. xx.

29. To-day somewhat feverish; pulse 96; tongue dry; says he is free from pain; stools are more natural, but small in quantity; urine said to be more natural, but no change in colour of skin; considerable fulness over epigastrium and right hypochondrium. Omit. vinum et medic. hab. stat.

ol. ricini, 3vj., et hor. somni haust. c., tinc. opii, m. xv.

30. Feels relieved. Contr. medicam.

31. Again more feverish; pulse 104, rather full; bowels somewhat loose. Omit. medicam. omnia.

R. Acid. nitros. acid. muriat., aa. 3jss.; aquæ distill., 3jss.; syrup. simpl., 3j.; sumat pro potu.

R. Calomel., gr. j.; pulv. opii, gr. ss.; ext. tarax., gr. ij.; ft. pilul. sumat unam ter in dies.

June 3. Feels considerably better; pulse 76, of better strength; contr. medic. hab. in dies sp. hordei, 3ij.

4. Still keeps easier; pulse 80; bowels regular; stools natural; no appetite. Contr. medic.

R. Sulph. quinae, gr. j.; extr. tarax., gr. ij.; ft. pil. sumat unam bis in die.

6. Complains of sickness; pulse 60, soft, colour deeper. Omit. omnia, hab. stat. pulv. ipecac. 3j.

7. Less sick; bowels slow. Hab. vin. rubri, 3vj. cras mane; ol. ricini, 3jss.

9. Much the same; stools natural; urine and skin very dark-coloured. Contr. vinum adhib. epigastr. vesicat. hab. mane et vesp. mass., pil. hydr., gr. ijss.

11. Considerable fever, with much thirst; pulse 100. Omit. vinum: contr. alia, hab. pro potu imperial.

12. Rather less feverish; pulse 100; bowels again very loose. Omit. medic. et imperial, hab. bis in dies opii gr. j.

Rep. mist. acidulas.

13. Less feverish; very feeble; bowel complaint subsided. Contr. opium et mist. acid. hab. vin. rubri, 3jv.

15. Pulse 88, very feeble; skin less deep in colour; looks sunk; tongue dry; no complaint; respire quickly. Augest vin. ad 3vj.

16. Moribund. hab. sp. hordie, 3jv. Contr. vin. m. Death at six P.M.

*Inspection twenty-one hours after Death.*—Slight effusion of lymph in right pleura, much serum and lymph in left; a small quantity of lymph in pericardium; right lung much congested and œdematous, two cicatrices with surrounding emphysema at its apex; two-thirds of left in a state of grey softening; false membrane covering pleura over disorganized lung very vascular; heart healthy, as also great vessels in abdomen, intestines, kidneys, and spleen healthy; liver soft and mottled; gall-bladder much distended with fluid bile; cystic duct large; ductus communis as large as little finger; duodenal orifice much constricted, scarcely larger than to admit point of probe; head of pancreas large and hard; urethral stricture threadlike; bladder contracted; coats much thickened; examination of head not permitted.

## QUEEN'S COLLEGE, BIRMINGHAM.

## ANNUAL DISTRIBUTION OF PRIZES.

The annual distribution of prizes to the students of this collegiate institution took place in the theatre of the college, on Thursday last. At one o'clock the Right Hon. Lord Lyttelton, Principal, took the chair, supported by the Rev. Vice-Principal, the Dean of the Faculty, the Rev. G. Richards (Senior Classical Tutor), and a number of the professors and friends of the institution, amongst whom we noticed Richard Spooner, Esq., M.P., Joseph Webster, Esq., Baron D. Webster, Esq., J. E. Piercy, Esq., Dr. Wright, Dr. Birt Davies, Mr. Langston Parker, Mr. G. B. Knowles, the Rev. G. S. Bull, Rev. J. C. Miller, Rev. C. Craven, Rev. H. Pixell, E. T. Cox, Esq., Mr. David Barnett, &c. Amongst the members of the profession from a distance were G. Macaulay, Esq., Leicester; H. Seymour, Esq., Wolston; F. Gaunt, Esq., Alvechurch; Dr. Annesley, &c.

Mr. G. B. Knowles having read the list of prizes, the following were presented by Lord Lyttelton:—First medal (anatomy), Mr. C. W. Izod, Fladbury, Worcestershire.

First medal (materia medica), Mr. Samuel Hughes, Dudley. Second medal (materia medica), Mr. George Peat Dunn. First medal (chemistry), Mr. Thomas Whittall, Leamington. Second medal (chemistry), Mr. R. Thomason, Shiffnal. First medal (medicine), Mr. A. H. Paterson, Stourbridge.

First medal (surgery), Mr. P. H. Bird, London. First medal (midwifery), Mr. G. B. Masfen, Stafford. First medal (botany), Mr. Samuel Hughes, Dudley. First medal (forensic medicine), Mr. A. H. Paterson, Stourbridge.

Certificates from Demonstrators—Mr. C. W. Izod, Nuneaton; Mr. Nasou, Nuneaton; and Mr. Hodges, Ludlow.

The Rev. Mr. Miller presented The First Medal, value £25, to Mr. Oliver Pemberton, of Birmingham.

Second Medal, value £15, to Mr. G. B. Masfen, of Stafford.

Joseph Webster, Esq., and John E. Piercy, Esq., presented the following prizes:—

The Jephson Prize, 20 guineas.—Mr. James V. Hughes, Nauvick Rectory, Flintshire.

Clinical Medicine, 5 guineas.—Mr. James V. Hughes, Rectory, Flintshire.

Clinical Surgery, 5 guineas.—Mr. Peter H. Bird. The Rev. Chancellor Law then presented an extra prize of £20 to Mr. G. B. Masfen, he having gained four prizes.

Dr. Wright, in presenting to Mr. J. V. Hughes Dr. Smith's gold medal, for proficiency in the French language, remarked that, just before entering the room, he had become aware of the pleasing duty that had been imposed upon him. None knew better than did his lordship—whose acquaintance with both ancient and modern languages was well known—the importance of a knowledge of the continental languages. This branch of study was most essential to a professional man. True, they had good translations of many popular works; but it was necessary that they should be able to read these authors in the original, to guard against false statements. As an instance of this necessity he might relate an anecdote. An important work having appeared on the Continent, it was desirable that a translation should be published. Well, a gentleman was waited on, and £200 offered for a translation. The offer was accepted; and away went the gentleman to a bookseller, who agreed to get it done for £100. The bookseller forthwith hired him to a poor fellow in a garret, and gave him £50 for the job. The result was, that this poor fellow, knowing nothing of the genius of the language, nor of professional technicalities, turned out the book crowded with errors.

We have much pleasure in stating that, to the students of the present session, both resident and non-resident, the Rev. Chancellor Law has offered the sum of £100, to be divided amongst the prizemen generally; £5 to such as gain one medal; £15 to such as gain two medals; and so on in proportion as far as the before-mentioned sum will extend. Mr. Chancellor Law has also presented to the college the magnificent paintings which now adorn the college—namely, the "Return of the Prodigal Son," by David; "Mary Queen of Scots;" "King Charles the First and St. Roche." He also made a second addition to the library of upwards of 600 volumes, including principally the standard works of English literature. His donations of books now amount to more than 1,300 volumes.

## PATHOLOGICAL SOCIETY.

## (OFFICIAL ABSTRACT.)

Mr. Liston exhibited a specimen of stricture of the œsophagus. The stricture existed at the upper part of the tube, was about an inch in length, and capable only of allowing of the passage of a goose-quill. It had existed for a number of years, and there was observed considerable hypertrophy of the constrictors of the pharynx, particularly the inferior. The upper cornua of the thyroid cartilage were so approximated as to leave but a space of five-eighths of an inch between them, being a diminution of about an inch in the length of their normal interval. The patient, who had been under the care of Cruikshank and John Hunter, lived to between seventy and eighty.

## FRACTURE OF THE NECK OF THE FEMUR (?).

Dr. Peacock introduced to the meeting sections and drawings of the head and neck of the left femur, from a patient who had been supposed to have sustained a fracture of the neck of that bone. The capsular ligament was much thickened; margin of the acetabulum thicker than usual; but the cavity natural, and the round ligament entire.



The head and great trochanter were on the same plane, the neck of the bone being much shortened behind. The head was directed more posteriorly than usual. Several firm fibrous bands extended towards the circumference of the head of the bone, and these covered, in part, a large, irregular, bony projection, encircling the neck, and most conspicuous in front. The bony structure was atrophied, and the cancelli filled with oily matter. Portions of diseased bone extended at each side of the neck into the substance of the head, from the points where the irregular bony projection was situated externally, and between these the structure was more dense than elsewhere. A distinct band was traceable between the dense columns of bone at their extremities. The patient, when seventy-nine, fell from the top of a stair on his left hip. Eleven months after he could get about with the aid of crutches; the foot, however, was slightly everted; the limb an inch shorter than the other. The age of the patient at death was not known.

Dr. Peacock remarked that he had much doubt as to whether the changes in the structure of the bone were to be looked upon as the result of fracture or disease. The examination of different specimens in the museums of London had failed to convince him.

Mr. Liston had no hesitation in regarding the specimen in question as one of interstitial disease so frequently consequent on injuries of the hip, unattended with fracture.

#### POST-PHARYNGEAL ABSCESS.

Dr. Peacock exhibited a preparation of a peculiar form.

The sac of the abscess, which was the size of a small egg, was seen situated between the bodies of the upper cervical vertebræ and the back of the pharynx, not causing, however, much projection of the latter, from its being flattened in front. In connection with the anterior surface of the sac, there sprang a small cyst, forming a nipple-like prolongation into the pharynx, and completely closing the orifice of the glottis. It admitted the point of the little finger, and was freely moveable, and perfectly translucent at its extremity and sides. The preparation was from a female infant, seven months old. The child had occasionally suffered from dyspnoea for three weeks, the symptoms having been very urgent for the last three days of its life. In the intervals of the dyspnoea the respiration was natural; but the slightest exposure to cold, motion, or excitement, brought on a recurrence of the symptoms, which were attended in inspiration by a peculiarly croupy sound. There was no other disease observed after death, with the exception of much mucus in the bronchi, and slight lobular condensation in the lungs. Dr. Peacock said that another child, of the same age and of the same parents, had been brought to him suffering with symptoms similar in every respect; and that, having directed the appropriate treatment on the second day of the attack, the progress was arrested.

#### RUPTURE OF THE HEART FROM MUSCULAR EXERTION.

Dr. Richard Quain exhibited drawings and specimens illustrative of the serious injuries which sometimes occur to the left ventricle of the heart, or to the aortic valves, during muscular efforts.

The first specimen was a heart which had undergone fatty degeneration, and through the posterior wall of the left ventricle of which a rupture had occurred during some slight muscular efforts. He detailed the general characters of the injury, and the microscopic appearances of the change which the texture of the heart had undergone. He explained that in cases such as this, the blood accumulates in the feebly acting ventricle; it presses against and prevents the effective action of the aortic valves. The blood of the ventricle and that of the aorta is thus made a continuous column, which presses with the force of many pounds on the surface of the ventricle, predisposed by the degeneration of its texture to yield to this force, and rupture then occurs. On the other hand, when the ventricle acts vigorously,

and when, during muscular efforts, the pressure of the column of blood in the aorta is increased, its valves sometimes yield and are seriously injured; of four cases of this accident he gave the striking details. One occurred in a smith working in a state of excitement with a sledge hammer; the second in a porter who tried in a passion to force open a door; the third in a man heavily laden; and the fourth in a groom running with a horse. Of each case he gave the symptoms and physical signs, the latter being clearly those of regurgitant disease of the aortic valves; the *post-mortem* appearances in three of the cases showed the exact nature of the lesion in each, and that it was connected with the accident referred to. The fourth case still lives.

The inferences drawn from these cases by the author were—

1st. That the aortic valves are liable to injury during muscular efforts.

2nd. That this injury is not necessarily immediately fatal, but that this will probably be the result in a period varying from one to two years.

3rd. That the symptoms, physical signs, and progress of this injury correspond to those of the like lesion which result from disease.

A drawing was exhibited, from the pen of Dr. T. K. Chambers, of the *post-mortem* appearances found in the brain of a woman who died with symptoms of apoplexy, after a surgical operation.

## REVIEWS.

*Chemistry and Physics in Relation to Physiology and Pathology.* By Baron JUSTUS LIEBIG. M.D., &c. 8vo. London, 1846, pp. 116.

(Continued from page 73.)

"The constituents of plants and animals into which sulphur and oxygen enter are formed of compound organic atoms." (P. 43.) We should particularly like to know what a *compound organic atom* is? Something strange, no doubt!

"The same sugar of beetroot which ferments at an ordinary temperature, and is decomposed into alcohol and carbonic acid, yields, on raising the temperature of the juice, without the addition of any foreign substance, mannite, lactic acid, gum, carbonic acid, and hydrogen." (P. 47.) In the first place, beetroot sugar, by fermenting at any temperature, is *not decomposed* into alcohol and carbonic acid: it is a process of *acquisition and combination of oxygen* that gives rise to the new products, not the mere decomposition and different arrangement of the constituents of the sugar. In the next place, we deny altogether that the application of heat to the sugar of beetroot can produce the substances mentioned by Liebig, *without the agency of oxygen!* The statement is perfectly gratuitous and without foundation.

"Alcohol and common salt, in certain quantities, arrest putrefaction, and consequently the process of fermentation, by removing from the putrid body a certain quantity of water, which is a necessary requirement for this change." (P. 50). Here is another of Liebig's broad assumptions! If alcohol act thus, in arresting putrefaction, how does it happen that *proof spirit, diluted with three times its quantity of water*, will preserve animal bodies; and that an *unsaturated solution* of common salt will exert an antiseptic action for a considerable time? On the other hand, a small quantity of corrosive sublimate in water will preserve animal substances indefinitely; so will certain of the volatile oils; yet in neither case can the effect be due to the abstraction of water.

"Neither does arsenious acid affect the putrefaction of the blood, but its action on membranes and the membranous structures is unquestionable." (Pp. 50, 51.) Liebig seems to have made this idle statement merely to support a certain crotchet he is cultivating, about the antiseptic properties of arsenic. If he will be at the trouble of mixing blood with a solution of arsenious acid, and watching it a few weeks, he will see the mistake he has committed! Had he ever studied in a dissecting-room, where subjects are preserved

by the injection of arsenious acid into their blood-vessels, he would have known better than have written the nonsense above quoted.

"The requirement for the capacity of infecting a second individual, is the presence in the body of the latter of a substance which can oppose no resistance, either in itself, or through the vital energy in the organism, to the causes affecting a change of form and property." (P. 55.) He should have said, *the capacity of being infected*; because the capacity varies with the individuals subjected to infection, rather than with the infecting matter itself. *This* may be the same in multiplied instances of application, and yet be propagated in very few of them. As for any *substance* in the body resisting, *per se*, infection, the idea of such a thing is almost too absurd to merit notice. What substance is there in the body that does not owe its action to *vital power*? To talk of any *substance in itself* resisting infection, is just as rational as to say a dead body or a log of wood could do so. The animal frame is healthy or unhealthy, resists disease or yields to it, through its vital forces and conditions, and through none other.

"The termination of disease is only a destruction and removal of this matter (*i. e.*, the aforesaid *substance*); it is a re-establishment of the condition of equilibrium of those causes in the organism which regulate its normal functions, and which had been temporarily suspended." (P. 55.) First, it is an ideal something invested with assumed substantiality; and then it is a something else, expressed in the unintelligible nonsense just quoted—nonsense so utterly such, that we will willingly pay any man for his trouble who will engage to find the slightest rational meaning in it.

"No one feels any scruple in assigning a scarcely appreciable difference of temperature as the cause of inflammation, fever, or death." (P. 56.) This might be true if all mankind had as little scruple, as Liebig, of putting forth fancies for facts, regardless whether right or wrong; but we beg to assure him that he enjoys a most unenviable originality in this singular proposition: for, excepting himself, we do not believe that any man living, and in his right mind, could be found, who would venture to say that a "scarcely appreciable difference of temperature" could "*cause* inflammation, fever, and death."

"Contagion of the itch is an animal with a mandibular apparatus which lays eggs." (P. 58.) As relative pronouns represent the noun which stands nearest to them, we should understand from this sentence, that the mandibular apparatus lays the eggs, did we not know enough of natural history to believe otherwise. The announcement of an *insect* being *contagion* is a curiosity in its way!!

"We term it fixed contagion, because it cannot fly." (P. 58.) Did Liebig or anybody else ever hear of *contagion* that *could fly*? What could induce our author to write upon a science the very technicals of which he does not understand!

At p. 59 he tells us that "scarlatina, measles, and dysentery are contagious"; and in the same paragraph he says "that we are not able to recognise any organic entities as the source of propagating smallpox and syphilis." Did Liebig ever look through the microscope at smallpox, or syphilitic matter? Did he ever hear of either communicating a particular disease by inoculation?

"Vital force decides the direction of attraction, and opposes the force of cohesion, heat, and electricity; destroying the influence of every cause that hinders the association of atoms in combinations of a higher order without the organism." (P. 64.) Whilst in one part of his writings Liebig tries to make it appear that the living man is nothing but a laboratory, and has none other forces within him than those that are chemical and physical, we find him, in this place, the advocate of an ultra doctrine of vitalism, and investing the *vis vite* with attributes which the veriest dreamer of the immaterial school would laugh at. As for the latter part of the sentence, we leave it to be commented upon by those who have sagacity and comprehension enough to find out the meaning of it. We



candidly confess that, to us, it is an unmixed mystery. In closing this part of our notice, we quote a passage concerning fungi, as one amongst scores of sentences we could take in illustration of our author's obscurity of expression, and disregard of definite facts:—

"It cannot be doubted that all processes and their respective products are changed by their presence, for, by means of their process of nutriment [process of nutrition?] and respiration, they accelerate solution, limiting its baneful influence upon the surrounding parts to the shortest possible period of time." (P. 66.)

(To be continued.)

## TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

Mr. Markwick, of Langham-place, wishes to make known to the profession that he will be happy to show them, any morning before twelve o'clock, specimens of his new substitute for Poultices, &c. The value of the material is such that medical men ought to be made acquainted with it.

A Country M.D. inquires—"Can you inform me whether the Medical Galvanic Apparatus, advertised by Mr. W. H. Halse, of Finsbury-circus, is possessed of greater advantages than any other?"—"No. "Whether, by it, a continuous galvanic current, without any great amount of shock, if capable of being graduated, can be given?"—Yes. "Perhaps, you can inform me whether there exists in London any institution or library from which medical men in the country could obtain the loan of books of reference?"—"No.

Fair Play, Torquay, will admit, probably, that we have taken sufficient notice of the matter.

An Assistant.—The payment of the fare of an assistant from town to a country place is matter of arrangement. Most general practitioners, we fancy, would pay the fare.

A St. George's Student, in defending the Hospital and attacking the pupils of the adjoining school, makes two mistakes—first, in supposing that the letter signed "A Student" is not from a student (we have his name); and secondly, in being less fair than the assailed party, not giving a name himself.

A Subscriber from the Beginning.—The examination of the extra-urban licentiates, though under a different board of examiners, does not materially differ from that of intra-urban licentiates. The examination is not practical, and may be in English or Latin at the pleasure of the candidates. No fixed rules, however, govern, we apprehend, either the severity or amount of the examination. To get the most precise information an inquiry should be made of the secretary, who alone can state the times of examination; the period depending on the number of candidates.

Discipulus Lanensis gives emphatic reasons why Dr. Pettigrew could not have intended to assume the honour (such as it may be) of a teachership to the St. George's Hospital Medical School. "1st. It is notorious to all the students that in the vacation of this year an offer was made to Mr. Lane, the lecturer on anatomy at this school, to place him in the chair of anatomy at St. George's Hospital, and that Mr. Lane refused the offer.

2nd. The classes at Mr. Lane's school are remunerative to their respective teachers, whilst the late teachers of anatomy at Kinnerton-street make no secret of the fact that they have never profited one sovereign during the whole time that school has been established." Our correspondent adds some complimentary allusions to Dr. Pettigrew, which we need not repeat: they are unnecessary to to an argument very conclusive.

A Subscriber will find that we shall pursue the new vein we have opened. The complaint made is not unmerited, and deserves attention. We shall advert to it.

M.D.—"What is the examination required for a diploma at St. Andrew's?" A worthy friend hard by remarks from "seven to ten pounds." The authorities, however, give a somewhat stricter test—varying, we believe, with the position of the candidate. We have, however, given full information on this subject in earlier numbers.

Mr. Galbraith, Brompton.—We have received this gentleman's cards and circulars, and must pronounce them below what "professional dignity" requires from him. There is a limit to even dignity; but we cannot say that Mr. Galbraith has offended on the right side.

We are requested to say that in Dr. Gore's paper, relative to the permanent cure of ulcers of the legs, we should read "Dr. Knight Carey" instead of "Dr. Bright Casey."

Will Filius Æsculapii favour us with his name in confidence?

Mr. Brady's paper is accepted. It will appear in an early number.

Mr. Pranker, Langport.—The Provincial Directory, advertised a few weeks since in our Journal, will, we believe, be published with bona fides, though published by our friend Mr. Churchill. Of the other we know little; and we would prefer that our correspondents would satisfy themselves from some better-informed source.

The suggestion of our Limerick correspondent on "Incompatibles" will not be lost.

Veritas writes to us in strong terms against what he calls the intrigue of the Medical Committee of the Newcastle Infirmary, to induct a non-qualified practitioner, Mr. Gibb, into the post of House-surgeon. He says, "that the conduct of the medical staff, in interfering at all, is viewed with great and just reprobation; but that they should have given their support to a young man destitute of any diploma is inconsistent and undignified to the last degree. The following is a short résumé of the facts of the case:—1. Mr. Taylor's resignation was laid before the House Committee on the 24th of September. 2. A recommendation signed by six of the medical profession, in favour of Mr. Gibb, was presented at the same time. 3. The vacancy was not officially announced till October 16, and during the interval a kind of under-current was set agoing by the medical men in favour of their protégé. 4. The advertisement announcing the vacancy omitted to state the fact that a diploma is indispensable; and that, consequently, the nominee of the committee is disqualified." An announcement to that effect has appeared, so that we need not enter on the subject.

J. D.—Gum Arabic is used as a demulcent in medicine. If our correspondent be in good health, medicines are "unwholesome." If in bad health, he will do better to consult a regular practitioner than trust to any supposed virtue in gum Arabic. It cannot alone do effective service, and might do mischief.

Dr. Parsey, M.B., one of the honorary secretaries of the West London Literary Institution, has written to us expressing his amazement at the charge against Dr. Pettigrew by "One of the Board of Governors" of St. George's Hospital, which was printed in our last number. He assumes that the mistake (originating a serious charge of professional honour!) occurred, as we surmised, by the secretaries, naturally enough, confounding the lecturers of St. George's School of Medicine with those of the Hospital—a mistake, we fear, that ought to be apologized for to the School authorities rather than to those of the Hospital. Dr. Parsey's expressions of surprise at the illiberal use made by rivals of the mistake are natural, but may be

omitted in consequence of the further notice of the subject elsewhere.

A Correspondent, who does not give us his name, relates the case of a young woman (Elizabeth Harley, Edmund-street, Liverpool) who walked limpingly and with great difficulty in consequence of an injury to her spine caused by a severe fall, but was enabled to walk perfectly upright after a mesmeric séance. The mother, who would appear to be one of the many female readers of Mr. McNeile, was so alarmed, we are told, at the sudden miracle that she ran out of the room as though it were "Satanie." Will any medical friend investigate the case for us, and report on it?

ERRATA.—In the "Observations on Ophthalmic Surgery," by Mr. Walton, in our last number—Page 66, column 1, line 6, for "secretions" read "excretions." Column 1, line 37, for "root" read "rest." Column 3, line 7, for "sensation" read "secretion." Column 3, line 9, for "favourable" read "unfavourable." Column 3, line 38, for "sore" read "nose." Throughout the paper for "stile" read "style."

B.—The description will be inserted with pleasure. The cases will also be welcome.

Dr. Baldwin's "circular" from Redditch is curious. The learned physician, it appears, has the best possible truss as well as advice for his patients. This is going too far.

A Three-years Subscriber will find the book recently published by Dr. Thurnam most to suit his views. The work also by Dr. Williams, advertised in our columns, is invaluable. Dr. Prichard's book on "Insanity" is a cheap and good work on the subject.

## THE MEDICAL TIMES.

SATURDAY, OCTOBER 31, 1846.

"Plures errores, iidem que capitales."—AUGUSTINE.

WE have a particular desire that the learned editor of the "British and Foreign Medical Review" should keep out of the entanglements of quackery. He is one of the few men whom it concerns us to keep safely within the pale of the legitimate profession. The smaller fry may go and welcome; nobody misses them, or cares about their exit; they are of little use as friends, and, as enemies, give us no cause of apprehension. But, with the more enlightened and influential of us, the case is just the reverse: when these run into error, there is no saying how many followers may find themselves in the same predicament. Men in high station necessarily regulate, by their example and precept, the line of belief and course of conduct of the many who are incapable of independent opinion and action. It is this that makes exalted position dangerous, and invests its occupant with serious responsibility.

We are prompted to these preliminary observations from having read, we confess with regret, an article on hydropathy, by Dr. Forbes, in the last number of his able review. We the more regret the appearance of that article because the subject, as its author has treated it, was quite unworthy his erudite pen; and because the fact of such a comment, from such a source, will be construed into an approval of the cold-water cure as at present practised, and Dr. Forbes will be seized upon, *nolens volens*, as a champion of hydropathy by the many needy adventurers who adorn that unenviable calling.



That it may not be so is our sincerest wish; for we should as much grieve that his brilliant reputation as a scholar and a physician should be injured, as that the profession of legitimate medicine should cease to be adorned by accounting him one of its choicest members; but we know the danger of getting too near an enemy's camp. We know, also, that quacks are not to be trusted. Give them the smallest recognition, and they claim your intimate acquaintance; every inch of ground that you fail to dispute with them, they mark out as being trodden by you in common with themselves. Stern, positive, and uncompromising, should be our dealings with the aliens of the profession. Without going out of the way to fight them, it is sufficient to repel their effrontery when it amounts to obtrusiveness. This is all we would have to do with quackery in any shape—never to court its company for the sake of correcting it, but boldly to seize upon it, and thrust it away as an unclean thing, whenever it would attempt to wind its filthy folds round ourselves or our sacred calling. Much less would we in any degree share in, or patronise, its affected proprieties. The danger of doing so is twofold. In the first place, if you give encouragement to any part of an illegal system, the public will hold you to be in good faith with the whole working of it. Besides, admitting that in any system good and bad are necessarily intermixed, it is impossible to encourage the better without at the same time enhancing the worse part. Robin Hood, for instance, was a very charitable man, he gave largely of riches to those who were in penury; but he did not give his own, for he had nothing to give; he was obliged to rob one man to relieve another: so that it would have been impossible to encourage the charitable disposition of this outlaw without at the same time prompting him to further acts of pillage—to have made him the more generous would have only been making him the greater thief. So it is with quackery in any shape: advocate any part of it in connection with the whole, and the unworthier part, if there be such a thing, will lay its claim to the compliment. In the second place, there is a personal danger in having to do with illegalities. Perhaps no man living could be found so arrant a rascal as to have no good in him. Johnson said the better part predominated, even in the worst of men; yet, if we saw a worthy fellow playing at laying heads together with a convicted scoundrel, we should very much doubt the safety of his situation; and if he told us that he was snoozing with this sinner to get what little good was left in him, we should be inclined to say that his time would be much better occupied if he employed himself in gathering virtue where it was not quite so sparing. We can see no wisdom in drinking, like an intellectual syphon, from a dirty pool, when from another there is a pure draught to be drawn free from the risk of contagion.

The personal danger we have just alluded to is somewhat unhappily illustrated in Dr. Forbes's article, a short time back, on homœopathy. That article, we feel assured, was written with the best intention, and solely to subserve

the cause of rational medicine. It contained much that was good and well worthy the writer, but the whole production was ruined by the *illustration*. The whole bent of the discourse was to show that we are too prodigal of physic; that we often give it when not wanted, and when it is wanted, that we give it frequently in too large quantities. But what need was there to bring in homœopathy to illustrate this? From the experience of all ranks of authorities in our profession, plenty of evidence, safe and scientific, might have been adduced to prove that physic is often given in ridiculously large doses. We are in no wise indebted to homœopathy to tell us this well-known truth; yet Dr. Forbes chose to illustrate it by reference to the efficacy of infinitesimal doses. His intention no doubt was, not to show that homœopathic doses will cure disease, but that disease will often depart spontaneously if let alone. Yet there was no need tell us this trite tale, after this questionable fashion, for the substance of it is as old as Hippocrates. The object of Dr. Forbes, in his article on homœopathy, as we take it, was not for a moment to advocate any of the absurdities of that system, but simply to gather from the cases treated under it how we may add to the simplicity and efficacy of our own practice, by avoiding an undue interference with nature, and not drugging patients to death.

But we again emphatically repeat that we did not need homœopathy to tell us this; and that, without the smallest reference to this absurd doctrine, the learned author of the article alluded to might have carried his argument, and kept himself aloof from the dangers of comparing "great things with small." What has been the consequence of the plan he pursued? He made homœopathy the *subject* of a disquisition, and at the same time brought it forward *episodically*, here and there, in the text, to show that we might learn some useful truths from it; and he is instantly doomed by the *homunculi* to be one of their number. We regret to hear the unwelcome sound, but, for the last three months, our ears have been perpetually pained with the buzz of Dr. Forbes having become a homœopathist: and there is not a scribbler in this small line, living within the range of the "British and Foreign," who has not in consequence flourished his crowquill triumphantly, and sworn by his order with the vigour of a hero. Dr. Forbes is claimed as a kindred soul, and every disciple of the starvation plan vows his burning desire to hob-nob with the author of Young Physic, in a glass of genuine, gelid, *aqua pura*!

As if to anticipate this freak of Father-Mathewism, we have hydropathy, full length, in the pages of the "British and Foreign" for the October of the current year. It is written somewhat after the same style, and no doubt with the same intention, as the article before referred to; and we have the same reasons for regretting its advent. As surely as the article has appeared, so surely will the wet-blanket men claim the author as one of their tribe. We wish our contemporary well out of such frigid acquaintance. But what if both parties should lay claim, and whilst a "fellow-feeling makes

them wondrous kind," swear, as they pull *two ways*, with *one intent*—

"An apple, cleft in two, is not more twin  
Than these two creatures!"

Regarding the article in question, of course Dr. Forbes is at liberty to write such, and many other such, if he think fit; but, having committed them to the world, they become public property, and are liable to be canvassed after the freedom with which the like matters are conventionally treated. For our own part, we should let them alone, did we believe they came from a genuine hydropathic source; but, as we believe no such unworthiness of the author, we shall offer a running comment on this, his latest, and we hope his last, production, in toleration of equivocal practice.

Dr. Forbes says, "We have been careful to select, as our authorities, the best-informed and most impartial of the writers on the subject of the water-cure, and we have used our best endeavours to appropriate what alone seemed trustworthy." (P. 431.) We should like to know what trustworthy authority could be found upon the subject, as at present popular? Its promoters are notoriously made up of men who are either not belonging to the profession, or who, having failed in legitimate practice through unfitness for it, are glad to seize upon any expedient for getting a living. They are adventurers and renegades, every man.

Among the eight *authorities* whose *writings* head the article of Dr. Forbes we find Sir B. Lytton, the fashionable novelist. This gentleman, amongst many other *fictions*, is the author of "Ernest Maltravers," in which is expressed the high moral opinion, that "vice loses half its viciousness when you invest it with a sentiment." What value may attach to this poet's opinion on a medical subject we leave our readers to judge.

Some Mr. Lane is another source of information. Who Mr. Lane is we have never heard; and presume, as no authority attaches itself to his name, that he is *de facto* not worth listening to. Robert Hay Graham is another, who, though having an M.D. to his name, is as much a stranger in the legitimate scientific world as though he had recently found his way hither from the moon. Then comes Dr. Edward Johnson. We cannot better comment upon him than by quoting his every-day advertisement, by which he is as well known as Cockle, Morrison, or any other of this class:—

"HYDROPATHY.—A CARD.—Dr. Johnson, author of 'Life, Health, and Disease,' 'Results of Hydropathy,' &c., has REMOVED from Stanstead, Bury, to UMBERSLADE-HALL, Warwickshire, a much larger and more commodious house," &c. &c. We opine no delirium is wanted upon this!!

Next comes Sir C. Scudamore. This is an old joke of Sir Charles's. He has been in the milk-and-water line, time out of mind. There is scarcely any end to the number of mineral springs he has dipped his fingers into one day or other. As for his quoted communication, it is a medical visit to Graeffenberg, which we have read, and seeing that it had especial reference to Buxton, of course, treated it as a joke—the most indulgent way of regarding it. Next, we have Mr.



Herbert Mayo, or *Doctor Herbert Mayo*, as we think he has become through the influence of the springs of Germany. Mayo has gone astray from us—we do not wish to treat a defunct man hardly—

“De mortuis nil nisi bonum,”  
As to his host the traveller, with a sneer,  
Said of his dead small beer.”

Those who may wish to consult Mr. Mayo's professional obsequies, may read a review of his pamphlet in the *Medical Gazette* about twelve months back. The concluding names are Drs. Gully and Wilson—*par nobile fratrum*—of whom no doubt our readers are already well informed; and a Dr. Schedel, now known to us for the first time. Where is Captain Claridge, the father of the hydropathic quackery in Britain?

We shall continue the subject in our next.

“With a soft besom will I sweep your halls,  
And brush a web or two from off the walls.”—BYRON.

WE fear that the creed in vogue about the dignity and wellbeing of the medical profession is neither a wise nor a useful one. Nay, we have a strong suspicion, without being over positive, that it is, practically, a very perilous faith. The employment, the worldly comforts, the true dignity of the whole profession are more compromised by it, we surmise, than is generally thought of. The question raised is so important, that it may well excuse for it a thoughtful deliberation.

The great fact to resume with is, that in this metropolis, at least, medical students are addressed by their lecturers as though they were all to be pure surgeons, or physicians; all to live expensively in society, spending large incomes acquired with comparative ease. *West-end* teachers—as a general rule *teaching* solely because they have a competency of worldly means themselves—will persist in considering the body of pupils before them as men who either do, or will, or should possess a station in society exactly like their own. If the existence of some little pharmacy be recognised, it is recognised as an unavoidable evil, and, as such, shunned as though it were a social pestilence. It is the great drawback on gentlemanly respectability. The student goes to it as a task he cannot avoid, and dare not mention even to himself. In one word, the system is to educate young men to look forward to high fees, or gratis consultations—which means, that if they cannot buy their way to practice, or achieve it by a miracle, they must abandon the profession.

In practice, the expectations raised by the lecturers form the code by which a medical brother's practice must be regulated. Does he charge high? he is very respectable—*till* the bailiff takes possession. Does he charge low? he lives, but then pays the tax for it in neighbourly insinuation and abuse. Hence is it that we have so many endless complaints usually of very well-meaning and perfectly respectable practitioners—but mistaken and paying in poverty the price of their mistake—about unions and clubs and cheap physicians. The young general practitioner has adopted the creed of his physician-teacher, or pure-surgeon teacher, and finds to his dismay that a neighbouring physician, or pure surgeon, gives ad-

vice gratis to the young man's patients elect, and shares drug bills with the neighbouring pharmacist for his benevolent trouble!

Connected with this state of things we undoubtedly have a very deplorable state of professional practice. The annual professional receipts of gentlemen in British medical practice are below what as many mechanics in middling business command. We have entered somewhat into the statistics of the question, and this is a conclusion in which we are *more* than warranted. We are in no way to be compared, as regards mercantile success, with the body of solicitors, and the *hiatus* is each day rather extending than closing. Practitioners are increasing, medical practice diminishing. We are daily augmenting the reapers with the diminution of the harvest!

Now, we would respectfully ask, whether the explanation of these difficulties is not to be found in the false position our profession has been made, in a great measure, to assume to the public? Does the evil, in great part at least, not arise from our virtually making ourselves (apart from our hospitals and dispensaries) the medical attendants of the upper and higher-middle classes *alone*? We aim at a success too broad for the narrow pedestal on which we desire to confine it. We enclose ourselves in a circle too small to embrace our prosperity. The great bulk of the community, weekly toilers, are excluded from our calculations. A few pure surgeons and physicians monopolize the rich; the middle classes are the heritage of long-established experience; and the greater number of practitioners, who have but the comparatively poor, reject them in obedience to a code raised in their own favour by the more fortunate!

We know that an analogy has been looked after between our position and that of barristers and solicitors and clergymen. They accept no low, humbling sums, keep no open shops—nor should we. Is this argument a valid one? Law is the luxury of the rich—the poor's part in it is to become its victims. Barristers and attorneys indeed exist but for the possessors of property. Dealing nearly always with large pecuniary interests, they not unreasonably look to not unhandsome pecuniary emoluments. But medicine belongs equally to all classes: it is the friend and ally of all, and must be administered, in a pecuniary point of view, in reference less to the feelings of the doctor than the circumstances of the patient. Lawyers, by adapting themselves to their clients' circumstances, may yet have their own social importance flattered. It is not so with medical men: a haughty interpretation of the claims of their position would make them oppressors, at least to one portion of their patients. They cannot do justice to others, without doing some little injustice to themselves. They must sink some of the notions of gentlemanly dignity taught in the schools, if they would really be useful at once to the bulk of society and to themselves.

We may depend on one truth, clearly written on the wall, that if we do not adapt ourselves to the practice that lies before us, it will offer itself to other parties. The physician and

pure surgeon will take it in their dispensaries and hospitals, and the druggists in their open shops. No act of Parliament can do for us what we will not do for ourselves. If we are above our business, we shall speedily find men who, in the name of charity or rapine, will do it for us. Just as the apothecaries have risen practically to the functions of physicians, because a physician did not meet a public want, so surely will the druggists take up the functions of the general practitioner, because he fails to meet a general exigency. Already we have heard physicians, aided by a journal once possessing the importance of their organship, suggest that druggists should be educated to meet the more ordinary medical exigencies of patients, and the suggestion will assume the force of a social law—enacting itself into a binding rule—if we continue to pay no attention to the signs of the times and the tendencies of the age.

THE comments which appear in a contemporary on the letter which the Marquis of Northampton addressed to *The Times*, contradicting the report the former journal had so boldly put forth that he had resigned the office of President of the Royal Society, are too contemptible to deserve much notice. Still, as by a side-wind it is attempted to tax Dr. Roget or Mr. Bell with a direct falsehood, it is right to state the quibble by which that charge is supported. Mr. Bell, in his letter to the “*Literary Gazette*,” states, that at a certain meeting of the Physiological Committee of the Royal Society “there was no such report on this (Mr. Beck's) or any other paper.” Now, to contradict this. “*La Contemporaine*” quotes from a letter of Dr. Roget, wherein he states that the said Committee had received “two separate reports on Mr. Beck's paper,” and infers from this that either Professor Bell or Dr. Roget is wilfully misstating the fact. The solution of this apparent contradiction is simple.

We can, on the best authority, state that the letter of Mr. Bell referred to one meeting, and that of Dr. Roget to another held at least ten days later! So much for the charge of falsehood. It is impossible to read the complaint in “*the Lancet*,” that the letter of the Marquis of Northampton is deficient in “a gentlemanly tone,” without being forcibly, nay, irresistibly, reminded of a passage in Juvenal—“*Quis tulerit Gracchos de seditione querentes.*”

## MEDICAL REFORM.

### LETTERS

TO THE MEMBERS OF  
THE PROVINCIAL MEDICAL AND  
SURGICAL ASSOCIATION.  
BY A GENERAL PRACTITIONER.

#### LETTER II.

GENTLEMEN,—I have charged the Council of the PROVINCIAL WOLF AND SHEEP ASSOCIATION—your Association—with neglecting the interests of their members; and I will now adduce evidence to verify the accusation. These interests are not matters of uncertainty and dispute: they are well defined, urgent, acknowledged, and established. You have defined them to satiety, voiced them with clamorous unanimity: there can be, therefore, no plea of ignorance to set forth for this omission of duty. At the juncture when your rights were assailed by the Council of the College of Surgeons, when the Government, also, superciliously disregarded your claims, and left you to defend your own cause by your own exertions, —when the resources of your might were evoked,



and you declared in every corner of the empire, with more distinctness, force, and unanimity than ever before, your resolution to see those interests obtain the recognition, and your claims receive the sanction, of law,—at this moment, the very climax of professional commotion, the Provincial Wolf and Sheep Association published their statement, and initiated a series of meetings, with the view of *directing* this opportune demonstration of your will.

Do you, *general practitioners*, remember the efforts made by the Council of the Association at this period? I do not hesitate to characterize their conduct as the most subtle and perfidious attempt ever made to defeat the noble sacrifices consecrated by you to the acquisition of your just rights. The apple of discord was thrown among you, opinions became unsettled, doubt palsied your strength, all principle was clouded with ambiguity, and public opinion began to veer even from those essential maxims which had hitherto been the cardinal points of our legislation. To so great an extent was this the case, that I remember attending, at this period, a meeting of nearly 200 medical men, some of whom were old reformers, in which the embodiment of the *principle of representation* in one of the resolutions was *absolutely forbidden*! Nemesis was at hand with her scourge, and this, otherwise highly respectable, body never met again. I attribute all this mischief to the treacherous proceedings of the Council of the Provincial Association.

The part, however, acted then by this crafty Council was simply the evolution of their secret designs, and a repetition of an earlier scene in the drama of their career. To understand this subject clearly, it will be necessary for us to go back at least so early as the period when Mr. Warburton's motion was before the profession, and we shall find that the policy of this Council has been always the same—always directly pernicious to the interests of the general practitioner. There were two points to which Mr. Warburton was opposed, viz., the *elective principle* in the government of our collegiate institutions, and *protection* from illegal practice. He was a bigoted advocate for free trade in physic.

Notwithstanding these flagrant omissions, the Council of your victimized Association lauded the exertions of this gentleman to the very echo, and expressed the most bitter lamentations that his scheme was not passed through the House. For what reason, gentlemen, do you imagine that these dirges and congratulations were alternately sung? Because the Council hoped to carry two points—firstly but subordinately, an equal standard of qualification; and second and principally, equal rights throughout the United Kingdom.

Are these questions, *standing alone*, the questions for which the general practitioners of this country should contend? How can they benefit you? Is it desirable to increase the standard of your qualification? That can be effected without granting equal rights. Do you desire to emigrate to the burns and braes of Scotland, or to the lakes of Ireland? No, indeed: it would be vastly amusing to see an English practitioner wandering thither for a living. Oatmeal and haddocks, potatoes and buttermilk, would constitute but a sorry exchange for the solid pudding of Old England.

What, then, could such a measure effect? *Simply the legalization of Scotch and Irish practitioners in England.* There could be no reciprocity of benefits. It would not be the comprehensive scheme that its self-interested eulogists

have called it, but only, in truth, a one-sided legislation for the benefit of the graduates of the sister countries. So far as pecuniary advantages are concerned, it would be a positive injury to the general practitioners of this country.

The English practitioner can advocate such a scheme only as the less of two evils. The question stands thus:—Those gentlemen now illegally practising in England, and their imitators, will have the field of English practice thrown open to them, the floodgates will be loosed, and we shall be deluged with medical adventurers. Our practices will hence receive serious injury, and our only alternative is to require an equal standard of examination, under proper supervision, and determine laws. The practitioners require this to save their practices, and the teachers to save their schools. The advantage is, indeed, merely visionary; but drowning men will catch at a straw. It is also highly probable that many English practitioners advocated the same principles from a conscientious desire to see the whole profession in the three countries on an equal footing; and in such a case the account should be placed to their generosity, for it is an arrangement by which they cannot possibly profit. In any point of view, gentlemen, you could gain nothing by supporting these principles, and consequently, in reference to your interests, it was a secondary question.

Remember distinctly that I do not underrate the importance of these principles as components of a comprehensive legislative measure: I only affirm that they are *not* the questions in which *your* interests are bound up, but precisely those which vitally affect the Scotch and Irish practitioners. Men are constantly uneasy while acting surreptitiously, and it is, therefore, of vastly more moment to our Scotch and Irish brethren to be permitted to practise in England by legal sanction, than that the English practitioner should be protected from the invasions of the unqualified pretender. The Council of the Provincial Association evidently think that the chance of carrying both principles at the same time is impracticable, and therefore try to swamp you to save themselves. In making these remarks, let me not be considered as using disparaging language towards our brethren of Scotland and Ireland. Many Irishmen are my most admired and esteemed friends; and as for Scotchmen,—

"I am half a Scot by birth, and bred  
A whole one, and my heart flies to my head!"

I shall never, however, allow private engagements and personal associations to interfere with the unequivocal declaration of great public principles, or to misrepresent the truth.

At the eighth anniversary of the Association and at the time alluded to, Dr. Barlow (peace be to his manes! for he was only the mouthpiece of the Council) read a REPORT ON MEDICAL REFORM—(God save the mark!)—made up of arguments in favour of uniform qualification and rights; but it did not contain a syllable in advocacy of *representation* and *protection*! So grossly apparent was this neglect, that several gentlemen protested against the omission. Accustomed as the general practitioners are to be overridden by the Council, it must have been very rough treatment that caused them to turn the heel against their drivers.

In reference to the first point of qualification the report says:—"It is for this fundamental provision the legislative authority is chiefly, if not *alone*, needed; and, on this account, your Committee are the steady advocates for making *this* object the

*sole aim* (!) until this essential object is gained." Scotch legislation with a vengeance! For this all the general practitioners of England must go to the wall! Which abounds most in this passage—temerity or cunning?

The report dilated also upon a One-Faculty scheme, but the object was limned so vaguely, so obscurely shadowed forth as the distant and impossible, but no less blessed, Utopia of medical fraternization, that I cannot but think the concocters of the report were indulging at the time in a little quiet sarcasm at the gullibility of their members. It amounts to this: Give us *legal rights*, and we will get for you, *if we can*, a ONE FACULTY! Disinterested patriots!

At that meeting Dr. Webster said, by way of rebuke, and he deserves credit for it,—“It was well known that the representative principle had been recognised by all the medical associations now in existence, *except that which he was now addressing*!” Here we have a body of reformers, eight years old, failing to recognize the representative principle. It would be scarcely credible, did it not stand *ipsissimis verbis* in their own transactions. What they were then, they are still: trace them where we may, at every period since—in their annual meetings, their Bath and Gloucester gatherings, their addresses, their statements, their resolutions, their petitions—wherever they tread they leave the impress of the cloven foot; whatever they say is prompted by self-interest; whatever they do is marked by the same rigid and inerasable features that characterized them at the beginning. Their mission is sectarian—a present sacrifice of the interests of the whole to a part. It must be said, however, that they have had the matchless adroitness, during fifteen years, to make use of the money and influence of the many to the interests of the few; and, having elevated them to this “bad eminence,” there, for the present, we will leave them.

I have the honour to be, Gentlemen,

Yours, very faithfully,

VOX VERITATIS.

#### THE NATIONAL INSTITUTE OF MEDICINE, &c.

THE Committee invested with the functions of organizing the Institute have issued a list of the members who have already joined, which may be had on application to the Secretary.

At a recent meeting of the Committee a ballot was entered into as to the forty-eight names to be submitted to the members of the Institute, as members of the first Council. The result was as follows:—

##### METROPOLITAN.

1. Ansell, H., 3, Norfolk-crescent, Hyde-park.
2. Bird, James, 16, Orchard-street, Portman-sq.
3. Bowling, J., Hammersmith.
4. Clayton, J., 3, Percy-street, Bedford-square.
5. Clifton, Nathaniel, Cross-street, Islington.
6. Cooke, W., Trinity-square, City.
7. Dale, G. T., 14, Commercial-road.
8. Davis, Thomas, Hampstead.
9. Dodd, John, 12, Portman-street, Portman-sq.
10. Fuller, H. P., Piccadilly.
11. Hardwick, A., Kensington.
12. Headland, Edw., 32, Guildford-street, Russell-square.
13. Lavies, J., 34, Great George-street, Westminster.
14. Merriman, J., Kensington.
15. Moore, E. D., 10, Arlington-street, Piccadilly.
16. Nussey, J., Cleveland-row.
17. Pennington, R. R., 15, Portman-square.
18. Probert, J., 6, New Cavendish-street.
19. Randall, A. M., Finsbury-square.
20. Smith, J. S., Trinity-square, City.



21. Squibb, G. J., 6, Orchard-street, Portman-square.
22. Sutton, John, Greenwich.
23. Tegart, E., 39, Pall Mall.
24. Webster, G., Dulwich.

## PROVINCIAL.

1. Allison, W., East Retford.
2. Barker, J. H., Bedford.
3. Bryan, J. M., Northampton.
4. Burnett, C. M., Alton, Hants.
5. Coulthurst, J., Bristol.
6. Coward, W., South Shields.
7. Dalrymple, D., Norwich.
8. Dickinson, W. F. D., Ulverstone.
9. Hughes, Richard, Stafford.
10. Hunt, R. T., Manchester.
11. Hurst, J., Bedford.
12. Keelce, J. R., Southampton.
13. Lowe, Richard, Bristol.
14. Martin, Thomas, Reigate.
15. Morley, Henry, Medhurst, Sussex.
16. Paget, Thomas, Leicester.
17. Rogerson, G., Liverpool.
18. Seabrook, B., Brighton.
19. Scale, G. T., Landport, Portsmouth.
20. Stedman, J., Guildford.
21. Sleight, R. H., Hull.
22. Thompson, J., Nottingham.
23. Warner, T., Cirencester.
24. Woolridge, H., Southampton.

The balloting list containing these forty-eight names has been sent to the members, with a distinct intimation that, though forty-eight names are thus submitted, each member may adopt or reject them as may seem good to him, substituting any gentleman whose services he would prefer.

## MISCELLANEOUS CORRESPONDENCE.

## THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

[To the Editor of the Medical Times.]

SIR,—As an old member of the Provincial Medical and Surgical Association, I thank you for your letter of *Vox Veritatis*. By it you have done as much service to our Association as to the profession. We want some power to advert to its defects: those within will not, and so it is going to ruin. There can be no doubt we are a failure, and the question:—ought we to go on further, is become a vital one. My last guinea is gone unless there be a change. I was one of those that expected great things from two thousand a year of a subscription list; but, though we are now far in the second decade of the Association's existence, and have had the spending of rather more (than less) than 30,000 guineas, we have certainly done very little. We could have done more if we had tried, and could hardly have done less had we endeavoured. It is the Repeal rent over again. We have no schools established—no benevolent fund, except one kept at Worcester on worse than workhouse fare—no museums. Like the Radical politician, our watchword has been "No nothing!" As an instrument of puffing some dozen, or two dozen, pragmatical adventurers in science we have, of course, our utilities, and I have no doubt that those gentlemen whom you designate its "usufructuary landlords" will be ready enough to vindicate its importance, of which indeed they are good proofs; but for us, the mass of guinea-payers—the "sheep," as you call us, or the "geese" with golden eggs, as others might appellation us—the advantage is not very palpable. That the society has been lamentably inefficient in all that concerns the remedy of corporate grievances—in all that concerns education, protection of medical men, and benevolent funds—is a fact that cannot be denied; and I must say, that unless something is speedily done, and in an improved spirit, I shall hold that my guinea in my hand is worth two or three in that distant abode of clutchless speculators—the Worcester bush.

ALTERA VOX.

## WHAT WE HAVE—WHAT WE EXPECT.

[To the Editor of the Medical Times.]

SIR,—That portion of the year has now arrived which, though it is characterized by the symptoms of natural decay, may with truth be called the spring-time of medical studies. There are certain places of the modern Babylon which at particular seasons are characterized by provincial dulness and insignificance—the very winter of discontent to lodging-houses, coffee-shops, and theatres. The superintendents of these places have a calendar peculiarly their own, not constructed in accordance with the movements of mother earth, but with those of the fashionable or professional world. With the latter, October has more charms than the previous month to the ardent sportsman, or the smiling May to the rustic youths. The schools of science seem as if they awoke from a Lethæan slumber, and the professors, like giants refreshed, promulgate their introductory lectures with all the genius and eloquence they are enabled to muster. These productions are intended as a "feast of fat things" for the youngers fresh from the provinces: things to stimulate the appetite for knowledge, and then to satisfy. Ye gods, what a banquet for unsophisticated youths! Here we have dished up the best things of the best men, from Hippocrates down to Erasmus Wilson, and some choice morsels about the glories of the medical profession, which the gaping youths swallow with mighty energy and abundant satisfaction. What wonder if bright visions of the future flit before their eyes, giving hopes that Medicine, ardently embraced, will bestow upon them the most signal favours? Retirement, however, must bring with it sober reflection, and the abstract must be reduced to the concrete. It is with the medical profession as it exists in England that we have to do, and the hopes of its members are bright or gloomy just in proportion as they are encouraged or depressed. If it is a blessed, good thing to have plenty of corporations, then English medicine is blessed above every other body. Eighteen portals are opened to the aspiring candidate, where, according to the length of his purse, he may get letters to his name. The law of definite proportions is in full force here, for if a man have plenty of *tin*, he may have no fear of appropriating to himself the whole twenty-six letters of his mother tongue. And this is no marvellous stretch of the imagination—no fitful working of a heated brain: for if these eighteen corporations agree to an equal distribution of the alphabet, they will not have two letters apiece as their stock in trade. Neither has Physic any reason to fear her not being placed in the first rank of the learned professions; for, if her benevolence is not enough, the multitude of her corporations will place the others at an immeasurable distance. Eighteen heads to the profession! why, the number is neither mystical, spiritual, nor classical; for it, we can find neither precedent nor parallel, and therefore we must put it down as farcical. Had there been only three heads, we might have found in the watchful guardian of the nether regions an appropriate classical illustration; or fifty, we might refer to the celebrated Briareus; or one hundred, to the terrible Hydra: but eighteen puts one in a fix, from which it seems impossible to escape. There they are, and the question naturally arises, for what purpose? Medical science must be a wonderfully helpless bantling to want so many nurses to take care of it; and, like most other nurses, these have large mouths, wide gullets, and wonderful appetites. What fostering care has the majority of these institutions ever manifested? What anxieties for the onward progress of a science, one and indivisible in its nature, and supremely grand in its unity? It seems as if pride and avarice had found in these chartered follies a settled habitation and a rest; and that deformities which would shock our better nature are to be hidden from our view by the sober cap and gown. The archives of science give but a melancholy view of what colleges and corporate

bodies have done on its behalf. They are temples erected to the goddess Truth, but the priests have polluted the sanctuaries by erecting, at the very threshold, altars upon which the most costly sacrifices must be offered before the worshippers can enter. Here, in the shape of a golden calf, the presiding deity is seen, not Truth, but Mammon, and underneath, the astonishing inscription, *הנה אלהיך ישראל*. If too much has been said, or types too strong have been employed, let an afflicted profession at once declare. But the groans of struggling liberty, which are now heard, tell in the most affecting way that half has not been mentioned. Did the College of Physicians shield from the rude attacks of an ignorant crowd the illustrious discoverer of the circulation of the blood? Did they pour the balm of consolation into his afflicted spirit, when goaded almost to despair by the stubborn prejudices of the medical world? They left him to his fate; but, when he rose superior to the attacks of malevolence, and received the meed of praise to which his illustrious discoveries entitled him, then, and not till then, did they come forward as his friends and patrons. How fared the Berkeley apothecary when he promulgated vaccination? Why, when his name was great enough to confer honour on a title, they honoured him with a title. But, enough of by-gone corporate delinquencies,

"Quis talia fando

Myrmidonum, Dolopumive, aut duri miles Ulyssei  
Temperet a lacrymis?"

One would have thought that, by regarding past events, they would have been kept from greatly sinning in future days. Experience, however, apparently goes with them for nothing; and, as a natural consequence, they have neither the confidence of the Government nor of the profession. In this age of rapid advancement, the majority of medical corporations are left far behind. The outcast members of the profession have bestirred themselves. Leaving the slumberers to their dreams, they are gathering into close family compact, and have nobly resolved to build themselves a house. The scorned and the rejected are rising in the greatness of their strength, and an Institute in accordance with the spirit of the age has commenced. In this important work, one corporation, with a name at which universities blush, but which is more honourable than any medical title they can bestow, has thrown off her shackles, and put herself in the van. Already the great champion of medical usefulness and respectability, she bids fair to become an emancipator also. May the work be crowned with success. If, however, it should fail, then may our profession be represented, as an ancient conquered nation is on Vespasian's medal—a disconsolate virgin sitting under her own palm.

I am, Sir, your obedient servant.

FILII ESCULAPII.

Oct. 24.

## DR. W. V. PETTIGREW AND THE ILLIBERAL GOVERNORS OF ST. GEORGE'S HOSPITAL.

[To the Editor of the Medical Times.]

SIR,—I cannot but feel that I am called upon to take notice of a letter that appeared in your journal signed by one of the Board of St. George's Hospital. I only rejoice that this miserable-minded man was ashamed of his name, for had it appeared, it might, perchance, have been seen that he belonged to a profession, the members of which should be distinguished by their honesty, liberality, and candour. As a refutation of this poor man's subterfuge, I beg to enclose a copy of a letter, the original of which this unfortunate fellow, whom I pity from the inmost depth of my soul, must have seen. The learned Dr. Samuel Parr said—"I never flog a fool, it would be a cruelty"; and, as I am not of a cruel disposition, and would walk far out of my course to avoid crushing even a reptile, I shall leave this unfortunate being to his own reflections, which must, indeed, be a punishment.



Apologizing for occupying so much of your space, and probably sickening your readers, by bringing this wretched person again to their notice,

I have the honour to be, Sir,

Your very obedient servant,

W. VESALIUS PETTIGREW.

30, Chester-street, Grosvenor-place.

[Copy.]

West London Literary, &c. Institution,  
Oct. 9.

SIR,—We beg to acknowledge the receipt of your letter of the 7th instant, and to state that we had already received a letter from Dr. Pettigrew, pointing out the same mistake, and requesting that it might be corrected.

We have accordingly given directions that for the future the necessary alteration shall be made.

We have the honour to be, Sir,

Your very obedient servants,

(Signed) CHAS. LAHER, } Hon. Secs.  
W. H. PARSEY, }

Joseph Gunning, Esq.

\* \* \* The worth of the accusation is then just as much—i. e., just as little—as we expected. It really is too bad that persons occupying the position of gentlemen should so far forget its duties as to trump up deliberately a serious charge from an incident so trifling, and bearing on its face so much the semblance of a perfunctory mistake. The illiberal governors have only made bad worse by their defence.—ED.

#### THE UNITED SERVICE MEDICAL ASSOCIATION.

On Wednesday last, the 28th instant, a meeting of Naval Medical Officers was held at the British Hotel, in Cockspur-street, in pursuance of resolutions passed on the 18th of Dec., 1845, at Bermuda, for the advancement of medical science by the collection of useful information on medical topography, investigations of the modification of endemic and epidemic diseases, &c., and for the maintenance of the honour and respectability of the profession. Dr. Drummond was called to the chair, and read the prospectus; after which Dr. Evans, Deputy-Inspector of Hospitals, stated that he had laid the objects of the Association before Sir W. Burnett, Director-General of the Medical Department of the Royal Navy, and had received assurances of his support; he had also communicated on the subject with many of his medical acquaintance, and the project had met with general favour. It was subsequently agreed to invite the Officers of the United Service and Hon. East India Company's service to co-operate with them; and it was also resolved that the Association should be connected with the United Service Institution.

The following gentlemen were constituted a committee, and, after arranging a few other matters of detail, the meeting separated:—Dr. Evans, D.I.H.; Dr. Lindsay, D.I.H.; Mr. Drummond, surgeon R.N.; Dr. Bankin, surgeon R.N.; Mr. M'Ternan, surgeon R.N.; Dr. Cunningham, surgeon R.N.; Dr. Webber, assistant-surgeon R.N.; Wm. Thos. Alexander, assistant-surgeon R.N.; and John Bland, Esq.

#### GOSSIP OF THE WEEK.

APOTHECARIES' HALL.—Gentlemen admitted members on Thursday, Oct. 22:—Messrs. William Knowles and John Gardiner.

WAR-OFFICE, Oct. 27.—4th Dragoon Guards—Surgeon William Gardiner, from the 69th Foot, to be Surgeon, vice John Bickerton Flanagan, who retires upon half-pay. 7th Light Dragoons—Surgeon Stephen Lawson, from the 30th Foot, to be Surgeon, vice James Low Warren, M.D., who retires upon half-pay. 12th Light Dragoons—Duncan M'Intyre, M.D., to be Assistant-Surgeon, vice Harthill, promoted in 69th Foot. 30th

Foot—Assistant-Surgeon Thomas D'Arey, from the 56th Foot, to be Surgeon, vice Lawson, appointed to the 7th Light Dragoons. 42nd Foot—William Henry Macintosh, gent., to be Assistant-Surgeon, vice Dawson, promoted in the 54th Foot. 43rd Foot—Assistant-Surgeon Patrick Davidson, M.D., from the 70th Foot, to be Surgeon, vice Lawson, promoted on the Staff. 56th Foot—William Dechle, gent., to be Assistant-Surgeon, vice D'Arey, promoted in the 30th Foot. 69th Foot—Assistant-Surgeon Robert Harthill, from the 12th Light Dragoons, to be Surgeon, vice Gardiner, appointed to the 4th Dragoon Guards. 70th Foot—James William Fleming, gent., to be Assistant-Surgeon, vice Davidson, promoted in the 43rd Foot.

HOSPITAL STAFF.—Surgeon Robert Lawson, from the 43rd Foot, to be Staff-Surgeon of the first Class, vice Backshall Lane Sandham, M.D., who retires upon half-pay.

NAVAL APPOINTMENTS.—F. Brown Pritchard, Assistant-Surgeon, to the Belvidera. Oct. 26.—George Mackay, Surgeon; John F. Robinson, Assistant-Surgeon, to the Amphion; John Ward, Acting Assistant-Surgeon, to the Vengeance; W. B. C. Christy, Acting Assistant-Surgeon, to the Victory; George Gordod, Acting Assistant-Surgeon, to the Naiad; Walter S. Burke, Acting Assistant-Surgeon, to the Mutine; Thomas Deageley, Acting Assistant-Surgeon, to the Andromache; Dr. G. Clarke, Acting Assistant-Surgeon, to the Victory.

On Thursday, Thomas A. Ashcroft, Esq., M.D., was elected Honorary Physician, and Mr. Ellis Jones, Surgeon, to the Northern Hospital.

The amounts of the public charities of Paris, for the year 1845, have appeared in the shape of a report emanating from the conseil-général of the hospitals of Paris. The total expenditure amounts to £462,122 sterling, the following four items being the most considerable:—

Hospitals of Paris . . . .	£148,026
Asylums, ditto . . . .	162,535
Foundlings . . . .	59,292
For paupers relieved at home . . . .	61,765

The expenses of the Hôtel Dieu generally average from £18,000 to £20,000 a year; La Charité, £12,000; La Pitié, £12,000. The receipts for the year 1845 reached £517,372 sterling, and are derived from their usual sources, the following of which are the most important:—

	Sterling.
Landed property (annual income) . . . .	£55,000
Interest of capital . . . .	75,000
Produce of various establishments—	
Maison Royale de Santé, St. Louis, &c. . . . .	48,000
Gifts, about . . . .	35,000
Taxes on Custom-house . . . .	£208,000
„ Theatres . . . .	35,000
„ Pawnbrokers . . . .	4,000—247,000

PRESERVATION OF ORGANIC SUBSTANCES.—In the year 1836, died at Florence, a celebrated Italian physician, Girolamo Segato, who had discovered the secret of solidifying all organic substances. His secret died with him, but he left several remarkable preparations, and, amongst others, a table which is still exhibited at Florence, the slab of which is entirely formed of portions of human viscera in a state of complete marmorization. In 1839, Dr. Silvestris, physician to the Royal Hospital at Naples, saw Segato's preparations, and was induced to turn his attention to the same subject; his researches have proved more successful than those of his predecessor, inasmuch as he not only can petrify and preserve animal but also vegetable substances: thus flowers, leaves, &c., can be preserved indefinitely with their colour and pliancy. Dr. Silvestris' preparations are not merely covered with a crust of mineral matters—nor is any foreign substance substituted for the organic elements—the preserving agent is introduced between the particles of the textures, and may be at will removed, leaving the organized tissues in their natural condition. The method employed is no longer a secret; but the inventor being desirous of publishing it himself, we do not consider ourselves at liberty to mention

it; suffice it to say that it does not consist in immersion in water holding in solution the muriates of mercury: we are authorized by Dr. Silvestris to state that he has tried these substances and found them unsuited to his purpose. His experiments also bore upon muriate of ammonia in combination with silex and carbonate of lime; but the substance which he at present employs is of a totally different nature. The method may be applied to the embalming of the human body, as well as to the preservation of specimens of natural history and botany; in birds the feathers remain unchanged in colour or in consistency; the hair of animals retains its softness and pliancy—a circumstance which will appear singular when contrasted with the stony hardness which the viscera can acquire. Professor Duméril, M. Lallemand, Professor Dumas, M. Brongniart, and M. Dufresnoy have been appointed by the Academy to investigate the subject, and report upon the merits of this discovery, by which the study of the natural sciences will, we have no doubt, be singularly facilitated.

LIVERPOOL.—No less than 300 informations were laid, the week before last, against the owners of tenements in Liverpool for cellars which were either defective as to ventilation, or of insufficient size for human dwellings. It was proposed to dispose of this formidable number by hearing fifty summonses daily.

AFRICAN ZOOLOGY.—Mr. Louis, from Tunis, attended the Southampton British Association meeting with the view of exhibiting specimens of his collection of natural history. But he was annoyed by some difficulties placed in his way, and, though announced in the list for Wednesday, he did not appear.

Messrs. Evans, of Lord-street, Liverpool, say that rough Epsom salts, in a strong solution, are an absolute preventive to the progress of disease in potatoes, and that they save them even when they have probably reached decay.

OBITUARY.—At Morland Cottage, near Edinburgh, on the 11th inst., in the 82nd year of his age, Dr. John Thomson, formerly Professor of Surgery to the Royal College of Surgeons, and of Military Surgery in the University of Edinburgh, and more recently Professor of General Pathology in the University.

#### MORTALITY TABLE.

For the Week ending Saturday, Oct. 17, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES . . . . .	882	1000	968
SPECIFIED CAUSES . . . . .	882	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases . . . . .	182	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat . . . . .	92	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses . . . . .	125	151	157
Diseases of the Lungs, and of the other Organs of Respiration . . . . .	261	313	294
Diseases of the Heart and Blood-vessels . . . . .	35	29	27
Diseases of the Stomach, Liver, and other organs of Digestion . . . . .	64	70	72
Diseases of the Kidneys, &c. . . . .	13	8	7
Childbirth, Diseases of the Uterus, &c. . . . .	25	11	10
Rheumatism, Diseases of the Bones, Joints, &c. . . . .	10	6	7
Diseases of the Skin, Cellular Tissue, &c. . . . .	1	2	2
Old Age . . . . .	46	66	67
Violence, Privation, Cold, and Intemperance . . . . .	22	27	26



No. 371.

## SUMMARY.

Nov. 7.

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PROGRESS OF MEDICAL SCIENCE,  
INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

Meeting of Oct. 26; M. MATHIEU in the Chair.  
CHEMISTRY.—FORMATION OF SULPHURIC  
ACID, BY M. DUMAS.

In a late report on a communication of M. Lévy relative to the composition of gases contained in sea-water, Professor Dumas expressed his opinion that, under the influence of organic substances, the sulphates contained in large quantities in sea-water become decomposed and give rise to the production of sulphuretted hydrogen, which is again converted into sulphuric acid and sulphates on the surface of the earth; M. Dumas also promised to show, by experimental demonstration, that hydrosulphuric acid can, under the influence of the air, be converted into sulphuric acid. In order to redeem his pledge, the learned professor read a paper treating of singular chemical phenomena observed at the sulphurous baths of Aix, in Savoy. In that thermal establishment, metallic and earthy sulphates are continually formed at the expense of the stones and metals exposed to sulphurous emanations, although the most delicate tests fail in detecting in the vapours the smallest proportion of free sulphuric acid. Not only are sulphates produced, but free acid is deposited on the linen or cotton textures of the hangings and curtains of the bathing-rooms. These articles are speedily corroded by the contact of sulphuric acid, the existence of which is readily proved by washing the rotten tissues in distilled water, and testing it afterwards with salts of baryta, &c. After a short time the walls of the bathing-rooms become overloaded with thick deposits of sulphate of lime, and the destruction of the masonry is so rapid that it has been found necessary to substitute bricks for limestones. The steel, iron, and copper bolts, bars, keys, and locks are also speedily destroyed by the corrosive action of the acid.

Now, although the formation of sulphuric acid at the expense of sulphurous acid and air, and in the presence of metallic and earthy oxides, can, to a certain extent, be understood, the production of free sulphuric acid still remained inexplicable to those who are aware that, even in the chemist's laboratory, free sulphuric acid is obtained only under peculiar circumstances. And yet, in several localities, sulphuric acid seems naturally produced by sulphuretted hydrogen. Thus M. de Humboldt describes the phenomenon in New Granada. The Rio Pasambio, also called Vincgar River, arises at 3,400 mètres from the level of the sea, on the rocky breast of the Puracé volcano, and its waters preserve a degree of acidity so great that not only no fishes can live therein, but even after its junction with the Cauca, no fishes are met with to an extent of sixteen kilomètres (ten miles). In each litre of these waters, one gramme of sulphuric and eighteen centigrammes of inuriatic acid are found, although at the source only sulphuretted hydrogen is present. Guided by the observation, that it is on cotton or linen

textures that the free acid is chiefly deposited in the bathing-rooms at Aix, Prof. Dumas has succeeded in reproducing the same chemical action; and at a temperature varying from 50 degs. to 90 degs. (122 degs. to 194 degs. Fahr.), obtained, after fifteen hours, a very appreciable proportion of sulphuric acid from the prolonged contact of sulphuretted hydrogen and moist air with a piece of linen.

The importance of this transformation is unquestionable. In large cities the rapid destruction of iron, steel, or cast iron, exposed to the air, is no longer to be attributed, as it was in London, to the action of sulphurous acid gas emanating from the combustion of coals, but in all probability to the transformation of hydro-sulphuric acid, produced by the decomposition of organic matter and sulphur in the numberless sewers of the town. Besides, wherever air and sulphuretted hydrogen gas may meet porous substances, such as the humid remains of plants for instance, sulphuric acid and sulphates will be generated. Thus, in a constant round of transformation, sulphur will escape from the sulphates contained in sea-water, and be wafted in the atmosphere to the shore, there to resume its original saline condition, and assist in the nutrition of vegetable and animal matter. Azotized substances contain about one hundredth part of their weight of sulphur; in the body of a man of ordinary size, ten kilogrammes of dry azotized matter may fairly be stated to exist, and consequently one hundred grammes, or upwards of three ounces, of pure sulphur. To form an adequate idea of the immense scale on which the transformation is carried on, let us add that, at a moderate computation, the population of France may be said to represent two millions of kilogrammes of sulphur; and, when the vegetable and animal kingdoms are also taken into account, at least ten times that amount.

NUTRITIOUS POWERS OF COMMON SALT.—M. P—, of Lille, forwarded to the Academy a paper on the nutritious powers of common salt; and attributes to it properties which seem merely due to its well known virtues as a tonic to the stomach.

AN ANATOMICAL MEMOIR ON THE CORPUSCLES OF PAOCINI, BY M. PAPENHEIM.—In our next communication we will furnish an extract from the communication of that indefatigable anatomist.

## ACADEMY OF MEDICINE.

Meeting of Oct. 27; M. ROCHE in the Chair.

CLINICAL RESEARCHES ON VARIOUS POINTS OF THE HISTORY OF SATURNINE AFFECTIONS, BY DR. LEGROUX.—The following were the principal conclusions:—1. The saturnine affection is a general disorder, and not by any means a local malady of the digestive tube; it is chiefly characterized by a perturbation of nutrition and of innervation. Chemical analysis has shown that preparations of lead remain an extremely long time in the body; thus, M. Legroux has by analysis detected the existence of the poison in the organs of a patient who died after ten weeks' treatment. The

elimination of the toxic agent takes place through the skin—a fact satisfactorily proved by the effects of sulphureous baths on the skin of persons affected with colica pictonum. 2. In the treatment, M. Legroux points out five indications:—A. The destruction of the external agents through which the poison is introduced into the system, viz., cleansing and removal of clothes, and neutralization, by sulphurous baths and lotions, of the quantities of lead deposited on the skin. B. Expulsion and neutralization of the internal poison; this indication can be met by the exhibition of alum, sulphurous waters, sulphuric acid, hydrate of persulphuret of iron, &c. C. Elimination of the lead by increase of the secretions. D. Exhibition of specific drugs by which the toxic action of the poison may be counterbalanced. E. Treatment of complications, and chiefly of the anemic condition into which the patients are all more or less thrown. The meeting adjourned at four o'clock, and formed into committee, to hear the report on the Prix d'Argenteuil.

THE PRIX D'ARGENTEUIL.—The conclusions of the reporter were the following:—That the prize of 10,000 francs be not awarded to any one candidate, but be divided between four persons:—

M. Perréda .....	4,000 francs.
M. A. Mercier.....	3,000 "
M. Delcroix .....	2,000 "
M. Beniqué.....	1,000 "

An animated debate ensued, during which it was warmly argued by several members that the Academy had not authority to divide, between several candidates, the sum of 10,000 francs left by the will of M. d'Argenteuil to the discoverer of the most important improvement in the treatment of diseases of the urinary organs. It was decided that legal advice should be sought on the subject before the adoption of the report, and that, if necessary, the matter be laid before the Council of State.

## TREATMENT OF SCABIES.

M. Casenave recommends in the treatment of the itch the following lotion:—℞. Aq. destill., ℥iv.; potassæ hydriod., and sulphuris hydriod., aa. 3j.

In hospital practice M. Casenave prefers lotions with ℥viij. of any aromatic decoction to which are added 3j. of essential oil of thyme or peppermint, and 3ss. of alcohol.

TREATMENT OF BURNS.—M. Jobert, surgeon of Hôpital St. Louis, recommends burned surfaces to be covered with bladders filled with cold water, and even ice. The application is convenient, and often prevents feverishness and pain. The cold-water dressing is useful also in a more advanced stage, when suppuration has become fully established. M. Jobert observes, that cold-water doctors will consider him converted to their opinions—a satisfaction which, however, he cannot give them, as his practice on these points has not varied during the last twelve years, a period at which very little indeed was said or known of the doings at Graefenberg.

FORENSIC MEDICINE.—M. Benoist, an apothecary at Amiens, was commissioned by the tribunal



of that city to examine the body of a woman who had died during pregnancy, and who was suspected of having committed suicide. Arsenic was detected in large quantities in every organ. The fœtus, aged six months, thirty-three centimetres in length, was also submitted to the same tests, and no arsenic whatever was obtained. The combustion of the gas escaping from Marsh's apparatus was continued for more than an hour, and not a single stain of any kind was produced.

**ALBUMINURIA CONSEQUENT UPON SCARLATINA**, has been attributed by M. Rayer to acute nephritis; and to the renal inflammation he also ascribes the anasarca which is so frequent after the eruption. M. Legendre remarks, that, before three years of age, anasarca is very frequently the result of accidental exposure to cold in children debilitated by a chronic disorder; in such cases the simple use of flannel clothing is often sufficient to remove the disease; but after the first three years of life, whenever dropsy shows itself in a child, it can almost always be referred to an eruptive fever, and especially to scarlatina. In this form of anasarca, the urine is often found to be coagulable, but it is of a dark colour, contains blood discs, and its specific gravity does not diminish so much as in granular kidney. The coagulability of the urine does not seem, therefore, to Dr. Legendre to be connected with the anasarca, but with a congestive condition of the kidney produced by scarlatina, and analogous to the phenomena which the disease determines in the subcutaneous cellular structures.

D. M'CARTHY, D.M.P.

## ORIGINAL CONTRIBUTIONS.

### A Course of Lectures on Practical Midwifery.

By EDWARD RIGBY, M.D.,

Fellow of the Royal College of Physicians, Senior Physician to the General Lying-in Hospital, Lecturer on Midwifery at St. Bartholomew's Hospital, Examiner on Midwifery to the University of London, &c.  
Delivered last Session at St. Bartholomew's Hospital, and revised by the Professor for the "Medical Times."

#### POSITIONS OF THE FACE.

(Continued from p. 463.)

At my last lecture, gentlemen, you will recollect that I was occupied in explaining to you the positions of the head, as described by the German and French schools, and that I afterwards described them to you as they actually occur in nature. You will remember that I told you, towards the close of the lecture, that, in reality, the head only presents in two positions; that each of them is oblique; that in one the right side of the head is lowest in the pelvis, and in the other the left side. I told you, too, that these presentations had been called vertex presentations by the French and English schools, and hinder-head presentations by the German; but that, in reality, they are neither; as the presenting part is always the posterior superior angle of the parietal bone of the corresponding side. Speaking of the positions in which the face is said to present, you will remember that I told you facial presentations had been described by the French and German schools to correspond with their presentations of the head, and that the French had described six and the Germans four different positions. I have now, gentlemen, to simplify the matter exceedingly, while describing the positions of the face as they actually occur in nature.

Well, then, the face may present in two positions corresponding with the two positions of the head. In the first of these, the right side of the face is forwards, in the second it is the left side. In each case, the nose occupies the position of the sagittal suture in the cranial presentation—that is to say, it crosses the os uteri. In the first position, it is the right eye and zygoma which present, and as the face advances, the right malar bone becomes the presenting part: this is the part which first enters the vagina and passes through the os externum, and on which the livid, bruise-like swelling, is situated which the child brings with it into the world, and which corresponds to the caput succedaneum of head presentations. We can easily conceive that

this position has originally been a first position of the head; and that, as the head swings a little on its transverse axis, the face passes down and presents.

In the second presentation of the face, the left zygoma and eye are the presenting parts; and, as in the former case, when the face descends, the malar bone and side of the face (now the left side) first enter the vagina and pass through the os externum. In the first position the chin is to the right, in the second to the left, and moves somewhat forwards as the head descends. The presentation of the face, as described by the French schools of midwifery, where the forehead is more or less forwards, and to one side, in what they call the fourth and fifth positions of the face, is impossible; the forehead, being too broad and flat to pass under the pubic arch, is stated to be forced up above the symphysis, while the chin descends and passes over the perineum—a position which would require a neck of at least seven inches long for the head to be born. The third and sixth positions are still more absurd—I mean where the face is said to present in the antero-posterior diameter of the pelvis: for, in such a position, there would be a moment when the perpendicular diameter of the head and the antero-posterior one of the child's thorax were occupying the pelvis: now the one measures three inches and a half, the other two inches and a half; this makes a mass of six inches to pass through a diameter of the pelvis, which you know is only four inches, even in the skeleton state. The plate which Dr. Smellie has given of such a position does not apply to a full-grown fœtus; for the history of it shows it to have been a premature child, where the cranium was little more than membranous, and where the head was squeezed into a shape more like a sausage than anything else. If you refer to the great records of midwifery practice, you will find no such cases as these. What speaks most against these presentations of the face in the conjugate diameter is, that Madame La Chapelle, the most experienced person known—who did not write her admirable work until she had seen forty thousand labours—declares that such a presentation is impossible.

I have now, then, gentlemen, described to you the two positions of the head, and the two of the face, which really occur in nature. In both head and face presentations, the most frequent, or first position, is that in which the right side is foremost: in one case the posterior superior quarter of the right parietal bone presenting, and the right side of the face in the other. The second position of both head and face presentations is that in which the left side presents, the posterior superior quarter of the left parietal bone being lowest in the one case, and the left side of the face in the other.

In face presentations, gentlemen, the face is often very much disfigured by the swelling arising from the pressure of the soft passages. The nose is pushed up, the mouth distorted, and the eyelid drawn down by a large livid swelling; but all this will disappear in a day or two. The diagnostic mark of the face is the nose, which, as I have just told you, is always to be felt crossing the os uteri, in the same situation as the sagittal suture in the cranial presentation. As to all the other various positions of the face, gentlemen, which have been described and theorised on by authors and teachers of midwifery, they are of not the least importance, as not one of them occurs in nature.

Face presentations were, in the last century, looked on as highly dangerous to both mother and child; in fact it was considered impossible for the child to be born alive in these cases. The old practitioners thought that, if they could not push up the face and bring down the head, it would be necessary to deliver the child by craniotomy. Portal, as early as 1685, pointed out that the presentations of the face, if not interfered with, were very little different from those of the head; but his views do not seem to have attracted much attention. Portal says—"I have delivered several women whose children came with the face foremost, and always without any great difficulty—it being only observed that in such cases no violence must be used, but nature be left to its own course; which done, there is no danger either to mother or child, except that the face of the child

commonly appears black, which is easily removed by fomentations." La Motte was affected by the common prejudice about face presentations, and he advised that, when the pains are weak, the feet should be sought for and the child turned. He confesses, however, that the face was, in his cases, usually expelled by the natural efforts, and adds, "I have never seen any that have not done well." Gifford, a London practitioner, who died in 1730, and whose posthumous work was published in 1734, recommended turning, though, when the face was low down in the pelvis, he used his extractor (an early form of forceps). Deleurre, in 1771, supported Portal's views, observing that—"One daily sees similar labours terminate naturally; it is true they are somewhat longer, but they usually terminate without the aid of art." Boer, of Vienna, in 1793, brought the weight of his opinion in favour of Portal's views; he says—"Face presentations, being merely a rarer form of natural labour, should be left to be completed by the natural efforts, since neither the mothers nor their children are exposed to any greater danger in this form of labour, than they are in the most usual forms of all."

Boer attended the great Lying-in Hospital of Vienna, and had, therefore, ample experience on which to found his convictions. He adds—"Of eighty cases of face presentation, which I have myself observed and noted down, there were three, or at most four, where the children were born dead; none of the patients suffered in the least degree from any of these labours; and, except in one case, all were left entirely to nature: in one case only, on account of the weakness of the pains, and the dangerous character of the symptoms, I deemed it necessary to terminate the labour by the forceps." The opinion, that face presentations were unfavourable, was, however, supported by Baudelocque and Oslander on the Continent, and by Smellie in this country, although Dr. W. Hunter stated, at an early period of his lectures—"In this case I do not turn the head round in order to deliver, but, in nineteen cases out of twenty, leave it to come as it will."

Many reasons have been assigned for the child's being sometimes born dead in face presentations. Some have referred it to the severity of the labour; but the favourite opinion has been, that it is owing to the child's attempting to breathe. The idea is, that the face coming down first, it becomes excited by the stimulus of the air, and the child makes inspirations, which, on account of the pressure excited on the chest, it is unable to continue. This was Oslander's explanation. Others have said, that it is owing to the child's neck being stretched during the labour. Smellie, however, observes that, when there is a slight disproportion between the child's head and the mother's pelvis, the pressure on the vessels of the neck is so considerable in face presentations as greatly to engorge the brain, and this is the cause of the child's being occasionally born dead. Chaussier, the celebrated physician to the Maternité, at Paris, has supported this view, which he has corroborated by dissections, and states that the vessels of the head and neck are found gorged with blood.

In cases of face presentation, as I have before mentioned to you, you will find the face much distorted, and deformed by livid swelling: this, gentlemen, if let alone, will all disappear in a day or two; but you must be strict in your directions, that no friction be used by the nurse or attendants. The less the parts are meddled with the better, and the application of friction or of hot poultices will only be likely to produce ulceration.

I now, gentlemen, come to consider presentations of the nates. I shall follow the same plan as I have done in the presentations of the cranium and face, and first tell you how the nates have been said to present by systematic authors on midwifery, and afterwards explain to you the simple manner in which the thing really occurs. Four positions of the nates have been described: two with the child's abdomen backwards, and two with it forwards. In the first of these positions, the abdomen was said to be turned towards the left sacro-iliac synchondrosis; in the second, towards the right sacro-iliac synchondrosis; in the third position, the abdomen was said to be turned towards the right foramen



ovale; and in the fourth, towards the left foramen ovale. We are told by the authors on midwifery, that when the nates enter the pelvis in the first position, the right ischium turns gradually forwards; but, not being able to pass under the pubes, we are told that the left descends into the hollow of the sacrum, and the right ascends behind the pubes, just as we are told happens with the head. This is the reverse of what occurs in nature; the part which presents first, is also born first. The left ischium is then said to pass over the perineum; the shoulders to turn into the antero-posterior diameter of the pelvis, and the head is said to follow with the chin upon the breast, the chin first emerging over the perineum. The third and fourth positions in nates presentations are said to be more difficult than the first and second; because, the abdomen being turned forwards, the chin is stated to be apt to leave the breast, and to hook upon the symphysis of the pubes. The same authors were equally unfortunate in their description of the means of diagnosis of nates presentations; they said—feel for the tuberosities of the ischia: these, gentlemen, are useless as diagnostic marks; they are thickly covered with flesh, and are, consequently, liable to be mistaken for the shoulders. They have also advised that the organ of generation should be felt for. By all means, avoid this, gentlemen; these delicate organs are subjected to sufficient pressure, without being interfered with by your finger. The coccyx, gentlemen, is the only point which cannot for a moment be confounded; it is pointed, and more or less moveable, and has at its base the hard and irregular sacrum, and in front of it the anus; the coccyx, too, has the advantage of showing you the real position of the child. There are, therefore, two positions of the nates which occur in nature: the back obliquely forwards, and the belly obliquely forwards. Of these the former occurs the more frequently. That position with the pelvis of the child in the left oblique diameter is the most frequent. The mode in which the labour proceeds is much the same as in presentations of the head; the ischium is placed obliquely at first, and continues directed obliquely. When the head gets into the cavity of the pelvis, it takes a position more like that described by authors; but of one thing you may be sure, the abdomen of the child will always turn, more or less, towards the mother's spine, whatever may have been its direction at first. Sometimes the child takes a sweep round three quarters of a circle, in order to accomplish this, but more generally it makes the shorter sweep of one quarter, as I described to you when speaking of presentations of the head. One or other of these turns is sure to take place, if not prevented by injudicious interference. At the commencement of labour the feet are usually felt in the vicinity of the nates; sometimes a little higher, sometimes lower. In the first case, they usually turn up on the abdomen as the nates descend; in the other, they come down before the nates, and then we have a presentation of the knees or feet.

In no case can so much mischief be done so easily as in a case of nates presentation. The child is arranged in an oval or egg shape. The legs are turned up on the abdomen, the arms crossed upon the breast, the chin pressed upon it; this is the most favourable form for easily dilating the soft parts, and for its safe expulsion; any attempt, therefore, to alter it, must be productive of much mischief. The chin, if labour is not interfered with, will remain constantly pressed against the child's breast during the passage of the head through the pelvis, and keep the head in the most favourable position for passing easily through it. In this way, therefore, the child comes doubled; the soft parts are much more dilated, and the uterus stimulated to greater efforts, so that, when the head enters the pelvis, it passes through so quickly as not to press injuriously on the cord. What keeps the chin upon the breast? The pressure of the uterus acting upon the long diameter of the head. If, therefore, any attempts are made to hasten delivery by pulling the body of the child, it is evident that the fundus uteri will no longer remain pressing on the head; the chin, therefore, quits the breast; the arms, which had before remained crossed over the breast, slip up into the cavity thus formed, and after-

wards pass up by the side of the head; besides which, the head comes with its long diameter into the cavity of the pelvis. In such cases, the uterus being, to a certain extent, suddenly emptied of its contents, ceases to contract at the very moment when active contractions are most important; the umbilical cord is compressed, and the child is destroyed. Presentations of the nates and feet must be considered as natural, the child coming with its long diameter parallel with that of the uterus. Footling cases are not so favourable for the child as nates presentations, because in the former case the soft parts are not so perfectly dilated, and the uterus is more suddenly emptied of a large portion of its contents than in the latter. Footling cases are, on the other hand, easier for the mother, perhaps, than nates presentations. When the nates present, the passages are more distended, and offer more resistance to the action of the uterus, which is by this means excited to more powerful contractions. But when the feet present, the resistance is much less; the uterus is more suddenly emptied of its contents; the parts are not so well dilated, and the head is very likely to cause difficulty from the cessation of uterine contractions when it enters the pelvis.

I have now, gentlemen, completed the subject of Entocia, or healthy labour, and I commence that of Dystocia, or difficult labour. Dystocia has been divided by Professor Naegele into two classes: the first consisting of labours not capable of being completed by the natural powers. These may arise from various causes—1st, from malposition of the child; 2nd, from faulty form or size of the child; 3rd, from a faulty state of the structures which belong to the child; 4th, from a faulty condition of the mother's pelvis; 5th, from a faulty condition of the mother's soft parts; 6th, from a faulty state of the expelling powers. The second class comprises such labours as are dangerous to the mother and child, but in which the progress of labour is not interrupted. The chief causes of this class of Dystocia are—1st, too rapid progress of the labour; 2nd, prolapsus of the cord; or any of the circumstances or conditions that may render labour dangerous, such as: convulsions, syncope, continued vomiting, hemorrhage, &c.

Before entering on these subjects, I will consider the operations of midwifery, and, first, with the forceps. You may well imagine, gentlemen, that practitioners, on observing the elongation of the head in difficult labours, would have suggested the use of an instrument resembling the forceps at present in use. Why they were not generally known until the middle of the last century, results from the erroneous views which were entertained respecting the manner in which the head passes through the pelvis and external parts.

I shall not trouble you by relating the fine-drawn measurements of the pelvis that have been made; in practice you will find them to be inapplicable. You will recollect, simply, that in cases where the antero-posterior diameter of the pelvis is less than three inches, compression of the child's head will be useless, and the forceps consequently unavailable.

Forceps are made very differently: some have a large curve, some a small one. Forceps with a large curve are very powerful holders; but they are more difficult to introduce, and are, besides, unfitted to exert the necessary compression on the head of the child; and, consequently, do not answer the purpose for which the forceps were invented. Forceps were at first made without fenestræ in the blades. Oslander's forceps were the last of this description:—they were much heavier, of course, and more clumsy, and they did not permit the passage of the prominent parts of the child's head through the blades. This is an important advantage gained by the fenestræ, as the forceps by this means occupy much less space in the pelvis. I shall continue the description of the forceps, gentlemen, in my next lecture.

Professor Schönbein has been experimenting with his explosive cotton in mines in Wales; and it is said with tremendous effect, one ounce of the cotton proving equal to a pound of gunpowder.

## DUMAS ON ORGANIC CHEMISTRY. No. III.

### THE NUTRITION OF PLANTS.

(Continued from page 47.)

How does the carbonic acid act. What are the necessary conditions for the phenomena which have been engaging our attention? A few historical details will show us. Bonnet was the first to observe the disengaging of gas from leaves exposed to the sun under aerated water; Priestley discovered that the exhaled gas was oxygen; and Sennebler showed that this oxygen was formed from the carbonic acid held by the water in solution, and properly connected this fact with the nutrition of plants.

To produce decomposition of carbonic acid, the green parts of the plants must be exposed to solar light. There is no decomposition apart from such agency: nay, a plant under the action of aerated water produces carbonic acid. The two experiments following prove this.

Place under an opaque vase a receiver containing plants in an atmosphere of carbonic acid, and keep it from the access of light for several days. The gas—being now transferred to another vessel—will still be found to present the characteristics of carbonic acid: showing that it has remained unchanged.

Try a similar experiment with plants, but exposed to solar light, weakened by a gauze veil, or a leaf of transparent paper as a necessary precaution: since although, as we know, a plant in the open air may grow well receiving directly solar rays, yet under a receiver there are lenticular sides that may concentrate the light, and produce torrifactions that kill the vegetable. The result will give us nearly pure oxygen.

Light, therefore, is essential to the phenomena: without it the surface of the earth would know neither action nor durable vegetable life.

We now examine the forms under which carbonic acid reaches the plant. Direct, by means of a glass tube, a current of air into a distilling receiver with three apertures. A bulbed apparatus fixed to the first aperture washes the air as it enters. To the third aperture is attached, first, a syphon-formed tube, containing pulverized pumice-stone moistened by sulphuric acid, which retains water; then a second bulbed apparatus, containing a concentrated solution of potash, to absorb the carbonic acid; and this is followed by a syphon-formed tube filled with pulverized pumice-stone moistened by sulphuric acid, in order to retain the water, which may be lost by the solution of potash. These two apparatus are carefully weighed before the experiment; and, to prevent the least air saturated with moisture entering the apparatus which has been thus weighed, a third syphon-formed tube is added, containing also pulverized pumice-stone moistened by sulphuric acid.

All the air now passed into this apparatus, when exposed to solar rays, gives off its carbonic acid: the weighed apparatus tell of no increased weight during the whole experiment. Thus, vegetables draw their carbonic acid directly from the atmosphere, as this experiment conclusively demonstrates.

But we do not hence admit that this is the only source of carbonic acid. It may be conveyed to the plants by the roots, which absorb it from the soil. The moisture of the soil, arising from rain, and seized by the roots of vegetables, has become charged with carbonic acid, either in the air or in the fissures of the soil. The slow combustion, also, of manure round plants is a continual source of carbonic acid. The kind of apparatus just mentioned presents a small realization of this phenomenon, and shows the part thus performed by carbonic acid. The roots of the plant enclosed in a receiver being plunged into a vase of water charged with carbonic acid, absorption conveys the water into every part of the plant, and the carbonic acid, being carried into the leaves and green parts, is there decomposed by contact with light. When performing this experiment, with



this object, we should be careful in filling the first bulb tube with a concentrated solution of caustic potash, to stop the ingress of carbonic acid coming from the air itself.

In fine, vegetables have two sources, whence they draw carbonic acid:—1st, they take it directly from the atmosphere; 2nd, they take it through their roots. They also receive it through the dew.

A few words will show that light is essential to the decomposition of carbonic acid. If green branches be so arranged in a dark room that the light reflected by their green portions falls on a daguerreotype plate, this light will act very feebly on the iodide of silver, as though the chemical rays of light (those reflected from the green portions), being absorbed by the action of life in the plants, had ceased to exercise chemical action.

The green leaves act nearly in the same way as those dark substances known to destroy light. What can be more worthy of study? The moment the light strikes the leaves, nature's most mysterious action—and the most worthy of being unveiled—is accomplished, as it were of itself, and in such a way as leaves us no right to think that any such action can be produced by all or any of the means that science has at its disposal.

The decomposition of carbonic acid, is therefore, accomplished under the influence of solar light, and of the green matter in plants; but does the green matter possess this property inherently, or needs it the aid of vegetable organisms? The experiments of M. Morren enable us to answer the question. The green matter acts always in the same way, when in contact with the solar rays, whether it be part or not of a vegetable organism. Water sometimes holds in suspension a green matter, formed by green animalculæ. If this matter be analyzed under different meteorological circumstances, it will be found that the relation of the oxygen to the gas extracted by ebullition will vary from 16 to 60, or from 1 to 4. If the air be analyzed after a period of isolation, the oxygen will predominate, and the animalculæ show themselves in active life. Should the sky remain cloudy, the animalculæ will become inactive, and the oxygen gradually disappearing in the air of the water, will be replaced by carbonic acid. Carbonic acid is then decomposed by the green matter of the animalculæ, assisted by the light, and the oxygen is set at liberty. In the absence of light, inverse phenomena manifest themselves. Fish in a pond, for example, absorb rapidly the oxygen of the air held in solution by the water. If the green animalculæ do not come and replace this oxygen, by decomposing the carbonic acid, the fish will suffer, and by degrees die. If, on the contrary, the sun shine powerfully, the animalculæ will soon return to the air all the lost oxygen, and the fish will again become active and lively. These alternatives are constantly being reproduced, and become particularly remarkable by the strange rapidity with which the results become manifest.

This observation, besides the rank it assigns to the green matter, gives an exact idea of the phenomena that occur in the atmosphere. In the atmosphere the equilibrium is due to the same causes, but the variations are much more limited. The motion of the air is more rapid, and its volume is enormous when compared to the causes which tend to modify it; while in the water of a fish-pond or pond the volume is small, distributively, and the causes influencing it enormous. Independently of green animalculæ producing the same effects as green plants, M. Morren has discovered a red-coloured animalculæ evidencing the same effects. This discovery is very interesting, for attempts had been previously made to pass unnoticed this remarkable action in the green matter of plants, although the leaves of certain vegetables and of certain trees were known to have a purple or nearly reddish tint even in their normal state. It would appear, then, from M. Morren's experiments, that there are several coloured matters that may serve as agents in the decomposition of carbonic acid.

Plants not green, fruits changing their green colour for tints more emblematic of maturity, and flowers, &c., do not decompose carbonic acid. As soon as the green matter appears in a plant exposed to the light, decomposition of carbonic acid begins. Is the green matter so found the product, or the instrument, of decomposition? If the product, will it, by successive renewals ceaselessly occurring, be finally transformed into the varied productions developed by vegetation? We are disposed to think the green matter an instrument, or agent; that it changes but little; that under its influence the other matters are reproduced, and are attracted by endosmosis, from cell to cell, to the vessels that distribute it to the different organs of the plant.

Still there are colourless vegetables that go through all the phases of existence without acquiring any colour. Mushrooms are of this number. Some mushrooms may be grown in the darkest mines; a very natural consequence of the absence of colouration, which, not allowing them to be acted upon by the light, enables them to exist without its influence. Still we should remark that the mushrooms growing in mines are snowy white, while those developed under the influence of light are always tinted with different colours; and, also, that mushrooms are always parasitic. They exist at the expense of vegetables or animals, living or dead; and this by means of the organic matters, already prepared, which such bodies contain. Life in mushrooms is, in every form, something like that of animals: their food is the same, and perhaps the analogy between those two classes of beings, apparently so distinct from each other, might be carried to a very considerable extent.

Thus, the vegetable kingdom finds its essential characteristics in the plants possessing the power of decomposing carbonic acid. It is here that the vegetable kingdom is found in the full possession of those characteristics by which it accomplishes its mission upon the globe.

The reproductive organs of plants are only a transition. Mushrooms are too little known under this *rappor*t to engage our further attention. It is, therefore, in the green parts of plants that we shall be able to discover the best apparatus by which the constitution of the air is influenced, and which forms one of the greatest instruments in the physics of nature.

Supposing plants to cease their functions on the surface of the globe, it is proved by calculation, that the quantity of oxygen in the atmosphere would suffice for the respiration of the animals actually existing, during thousands of years. From what we know, on the other hand, of the nutrition of animals, such disappearance of vegetation would in a very short time cause the death of all existing animals by inanition.

From all that precedes we are compelled to come to the conclusion, that the carbon in plants is essentially produced by the decomposition of carbonic acid.

A final consideration leads us to make here an important restriction. In relating the beautiful experiment of M. Boussingault on the complete development of peas, in a closed receiver supported by air, water, and carbonic acid alone, we have seen that the produce was of a much poorer character than one from manured soil. By manuring growing land the conditions of increase are augmented; the manure brings azotized matters, which surround the roots with a constant source of carbonic acid, and which, being conveyed by the sap of the plant, becomes decomposed by contact with the green portion of the leaves. The manure also contains mineral salts, which are indispensable to the complete development of plants; in fine, it brings soluble organic matters, which, in some cases, as has been proved by M. Th. de Saussure, are indispensable for the nourishment of vegetables.

All that we have established, in regard to the decomposition of carbonic acid by plants, is applicable to the decomposition of water. Plants derive hydrogen from water, they also fix water

in nature. We have now proof that several mushrooms disengage hydrogen in nature. Messrs. Edwards and Colin have demonstrated that the stems of the polygonum tinctorium, placed under water, disengage hydrogen. M. Payen has proved, by the analysis of the ligneous parts of vegetables, that hydrogen is always found in these to slightly exceed the oxygen.

We must add to these proofs the experiments of M. Boussingault on the growth of peas, and on that of trefoil and wheat. The following are the numbers:—

WHEAT.			
	Grains.	After three months' vegetation.	
Carbon..	46.6	.....	88.0
Hydrogen	5.8	.....	10.0
Azote ..	3.5	.....	3.7
Oxygen..	44.1	.....	81.0
	100.0		182.7

CLOVER.			
	Grains.	After three months' vegetation.	
Carbon..	50.8	.....	131.3
Hydrogen	6.0	.....	17.1
Azote ..	7.2	.....	9.8
Oxygen..	36.0	.....	100.7
	100.0		258.9

The difference of carbon, azote, water, and hydrogen, fixed in either case, is obvious.

The wheat has not fixed any hydrogen, but much carbon, and water; while the trefoil has at the same time fixed carbon, azote, hydrogen, and water.

If I have insisted on this decomposition of water in plants, established by M. Boussingault, it is because this accident in the life of plants, the fixing of carbon by the decomposition of carbonic acid, raises itself to the height of a great theorem in the general physics of the globe, and forms the equivalent of another phenomenon, so well proved by Lavoisier—the combustion of carbon and hydrogen, which characterizes animal life.

Plants reduce water, and appropriate hydrogen; they reduce carbonic acid, and appropriate carbon; and they decompose oxide of ammonia: they are reducing apparatus.

Animals, on the contrary, burn carbon and hydrogen: they are oxidizing apparatus.

This property in plants of appropriating carbon and carbonic acid, and of disengaging oxygen, is a property unknown to any apparatus or chemical force; and the science of physics will probably, at a future period, endeavour to explain this phenomenon. It should be ascertained whether the daguerreotype, before vegetables, acts in the same manner as when in presence of a darkened plate, and whether or not the light reflected by the green parts of the plants is without chemical rays. Vegetables certainly absorb a great portion of the chemical power which the sun gives to the earth; and, as all these phenomena unite, if the animal produces heat and electricity, the plant, in its turn, absorbs heat and electricity.

(To be continued.)

#### REPORT OF AN EPIDEMIC FEVER THAT OCCURRED IN WESTMINSTER DURING THE WINTER AND SPRING OF 1845-1846, BEING A SUMMARY OF THE CLINICAL LECTURES DELIVERED TO THE STUDENTS OF THE WESTMINSTER HOSPITAL SCHOOL OF MEDICINE DURING ITS PROGRESS.

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The occurrence of numerous cases of fever, more especially during the early months of this year, and the remarkable uniformity of type characterizing all the cases, together with the expressive interpretation of a few *post-mortem* examinations, permit me to hope that their publication may not be uninteresting. The following condensed extracts from the case books will, in the first place, exhibit the special features of this epidemic fever.

CASE 1.—A. S., a female, aged 40, was admitted into St. Margaret's Ward December 27,



1845. She had been suffering for some weeks from the ordinary symptoms of continued fever; this was inferred from her condition on admission; she was unable, from exhaustion, to give any account of herself, and when the report was made, those who had brought her in had departed. The pulse was 100, full and compressible; skin above the natural standard; tongue dry, red, and brown; teeth and lips covered with sordes; abdomen tympanitic; some epigastric tenderness; but the most sensitive part of the abdomen was the cœcal region. To be placed in a warm bath. Hyd. creta, gr. v. n. et m. The acetate of ammonia with the sesqui-carbonate every four hours.

Two days after admission, bed-sores appeared. The bowels were extremely torpid at first, although there was incontinence of urine. Turpentine enemata were ordered, as the tympanitic state of the abdomen had increased. Pulv. ipecac. c. yd. creta, aa. gr. v. 4tis horis.

The next day the incontinence of urine had left her. The abdomen still distended; tongue brown, dry, and glazed, but moistening at the sides; sleeps at intervals; enemata brought away dark, offensive excretions; urine scanty and loaded with lithales. Sp. gr. 1.032. Tenderness still continues in cœcal region.

Dec. 31. The bowels acted freely; pulse 94, soft; abdomen much less tympanitic; no tenderness in any region; tongue becoming moist, less thirst, urine less loaded, and evacuations less offensive and more natural. There had been but little delirium from the period of admission. She continued to improve. Was ordered the inf. cinchonæ with nitric acid; with an improved diet, porter, and a little wine. She rapidly progressed towards convalescence, and was discharged Feb. 3.

CASE 2.—E. S., aged forty-two, sister of the last case; a widow, two children living: sustaining herself and them on the wretched earnings of needlework. Was taken ill ten days since with rigors, prostration, headache, anorexia, sleeplessness, and thirst. The symptoms gradually became aggravated; no work, no earnings, indifferent and poverty-stricken neighbours, neglect, and starvation would soon have done their work, but for the vigilant charity of the Rev. Mr. James, who sent her to the hospital Dec. 27. On admission the tongue was dry, red, and glazed; insatiable thirst; dry skin; torpid bowels; tympanitic abdomen; general tenderness on pressure, but more especially in the cœcal region; pulse 112, compressible and soft; complains of abdominal uneasiness. Hyd. creta c., pulv. ipecac. c., aa. gr. v. 6tis horis. An ammoniated saline draught every four hours; ten leeches to the abdomen, with hot fomentations and cataplasms.

Dec. 28. Report stated that she had passed a good night; felt relief from the leeches and hot fomentations; abdominal tenderness diminished; there was still considerable tympanitis; tongue moist, and thirst less distressing; skin hot and febrile. A turpentine enema caused an action of the bowels—offensive and dark-coloured; slept a few hours, and woke refreshed, and with improved aspect.

29. Tympanitic condition of the abdomen much abated; some tenderness in the region of the cœcum; evacuations from the bowels improved in character; great bodily prostration. Powders and other remedies to be continued.

30. Less tension of the abdomen; bowels relaxed; less tenderness; skin cool; free perspiration yesterday; occasional refreshing sleep; great prostration; no delirium. Bed-sores have appeared on the sacrum.

31. Symptoms all improved; tongue clean, moist, and red; alvine excretions natural in appearance. Inf. cinchonæ c., acido nitricæ dil. ter die.

Jan. 1. All abdominal tenderness had disappeared; from this day she gradually improved, and, with a better diet, slowly advanced to complete convalescence.

CASE 3.—S. W., aged fifty-three, a washerwoman. Admitted Jan. 10.

Four days since was seized with rigors, headache, and other pyrexial symptoms. On admission there was great prostration; anxious countenance; intensely hot skin; pulse 100, small and

hard; great thirst; tongue red, and inclined to become dry—furred in striæ; bowels moved three times in last twenty-four hours, last evacuation bilious fluid; abdomen soft and elastic; no tenderness of epigastrium or cœcal region. Ordered Hyd. c. creta, c. pulv. ipecac. co., aa. gr. v. sextis horis. Diaphoretic salines, warm bath, and beef-tea.

Great restlessness with vigilance continued the two succeeding nights. Ordered Hyd. chlorid., gr. ij.; opii, gr. j., each night.

On the fifth day from admission, the bowels continued to be freely purged; tongue has become moist, less thirst, although the skin was yet of a febrile temperature; the abdomen has become tympanitic, but there was no tenderness in any region.

The two next days obtained no improvement; much delirium; the calomel and opium were withdrawn, and morphia draughts given at night; bowels continued free.

On the eighth day some sleep had been obtained, and there was exhibited a mitigation of the symptoms; skin had fallen in temperature; there was less thirst; no abdominal tension; pulse 110, small and feeble; great prostration and emaciation; tongue moist and clean. To omit the mercurials, and ordered inf. cinchonæ c. acid. sulph. dil.

On the ninth day there was a recession; delirium during the day; much abdominal uneasiness; tongue again becoming dry; pulse 110, very feeble; no pulmonary symptoms. Ordered port wine, with morphia draught night and morning. The morphia induced sleep, but the typhoid condition became more apparent; pinched countenance; sunken eyes; dry parched lips and tongue; sordes on the teeth; low muttering incoherence; small feeble pulse; hot skin, with tympanitic and uneasy abdomen. Turpentine enemata were administered with great advantage; the abdominal distention being much relieved; tongue became moist, and the skin cooler, after its operation. Alvine excretions very offensive.

The enemata were repeated every day; she had increased quantities of wine, but the typhoid condition continued unabated; and she gradually sunk, and died on the fourteenth day after admission.

No *post-mortem* examination was allowed.

CASE 4.—E. G., aged forty-seven, a married woman. A few days since was seized with giddiness, loss of appetite, rigors, thirst. On admission, Feb. 3, there was hot skin; furred tongue, red at margin and sides; great thirst; pulse 96, jerking and small; bowels open; some abdominal distention and pain over the region of the cœcum. The chest exhibited no symptoms, except a mucous rhonchus, occurring in the large tubes, and she states that she has been subject to a winter cough for years. Her husband has been suffering from fever for the last five weeks. She was ordered hyd. chloridi, gr. v.; pulv. ipecac. co., gr. x. statim. Warm bath, diaphoretic salines.

The next day was reported better; tongue clean, but red; pulse 100, with more power; bowels had been freely moved; fæces dark-coloured and offensive; cough troublesome; abdominal uneasiness abated. Ordered Pulv. ipecacuanha co., gr. x., omni nocte, and to continue the other remedies.

The second day after admission was reported to have slept well; the tongue had become cleaner, but of a bright glossy red, somewhat glazed; less thirst; abdomen not tympanitic, and tenderness disappeared.

During the next five days she progressed favourably; the abdomen, however, on the eighth day again became tympanitic, with some pain in the cœcal region on pressure; her pulse became feeble; tongue glazed; bowels free in their action, which was kept up by calomel and the Dover's powder; her powers evidently required support, and, although there was no delirium, yet her strength seemed fast sinking; beef-tea, double strength, port wine, with milk and arrowroot, were freely given; the secretions from the bowels continued very dark, slimy, and offensive, and repeated doses of calomel became necessary.

On the tenth day there was vomiting of a considerable quantity of a dark sea-green fluid; she

became deaf; a brisk action of the bowels was obtained by six grains of calomel, and a copious evacuation, of a most offensive character, evidently relieved the abdominal tension; she expressed herself much easier after this last motion; her powers, however, continued very low, and of a typhoid character. The inf. cinchonæ was ordered, with increased amount of port wine and nourishment; the alvine excretions improved in character; the abdominal symptoms gradually subsided, and she slowly advanced to convalescence, which was materially retarded by the chronic cough from which she has periodically suffered for some winters.

CASE 5.—S. M., aged twenty-six; married; a washerwoman. Admitted Feb. 13.

Five days previous was taken ill with rigors, frontal headache, giddiness, anorexia, thirst, and general prostration. On admission, complained much of pain of the loins and extremities; no swelling of the joints, nor any heart or pulmonary symptoms; the tongue was foul, coated with a febrile fur; skin hot, dry, and parched; pulse 106, full and sharp; bowels freely moved; abdomen full and distended; obscure pain on pressure in the cœcal region; there has been nausea and vomiting; sleeplessness for some nights past. Ordered hyd. chloridi, gr. v.; pulv. ipecac. co., gr. v. statim. Hydrargyrum c. cretâ, gr. v. nocte maneque. Saline draughts, the warm bath, and beef-tea.

14. Passed a restless night; bowels open twice; evacuations very offensive; pulse 100, sharp and cordy; skin hot; no abdominal tenderness; countenance expressive of febrile anxiety; occasional cough, but no pulmonary physical symptoms; stomach still irritable; vomits occasionally; tongue moist, but red at the apex and margin. Ordered pulv. ipecacuanhæ, c. gr. v., o.n. Hyd. chloridi, gr. iv. statim. Haustus salinæ purgans.

15. Bowels freely moved; abdomen tympanitic; evacuations most offensive; skin hot and dry; pulse 100, small and cordy; petechial spots have appeared on the extremities and trunk. Mist. ammon. acct., ʒj.; sp. æth. nit., ʒss. 4tis horis.

17. Bowels have continued free; motions improved in character; tongue dry in the centre, moist at sides; skin undiminished in febrile heat; pulse 120, small and weak; tension of the abdomen, with tenderness in the duodenal region; Port wine, and beef-tea double strength.

18. Restless night; typhoid indication; great prostration; pinched countenance; sordes collecting about the teeth; skin has become much cooler and moister; occasional delirium, and vomiting of a grass-green fluid.

19. Bowels became much relaxed, passed involuntarily, and highly offensive; urine of high sp. gr., and loaded with urates; tongue brown and dry; trembling; abdominal tension, with augmented pain in the duodenal and epigastric regions; increasing incoherence, but to the last could be roused to answer questions. Increase of stimuli, both ammoniated and vinous, were of no avail. She sunk, and died Feb. 20.

*Post-mortem Examination twenty-four hours after Death.*—The pulmonary viscera healthy; the peritoneal surface of the abdominal viscera healthy; the liver, spleen, kidneys, and uterus were in a state of simple congestion. A portion of the lesser curvature of the stomach, and the upper portion of the duodenum, were in a state of acute inflammation, the mucous surface being deeply injected, and in the duodenum easily detached; the duodenal glands enlarged, but not ulcerated; patches here and there of inflammatory action were observed in the progress of the jejunum; towards the lower fifteen inches of the ileum the inflammatory condition acquired its maximum of intensity, but no ulcerative spots could be detected; the cœcum was intensely injected; the colon throughout its whole course also exhibited the aspect of active inflammation, with exudation of blood from various parts of the mucous surface; this condition extended down as far as the rectum, but throughout no traces of ulceration could be discovered; the brain exhibited no other feature than that of active congestion (hyperæmia).

CASE 6.—M. T., aged fifty-five, hospital nurse. Feb. 22. Was taken ill four days since with rigors, pains in her limbs, prostration of strength, and thirst,



against which she has struggled, till, becoming more and more aggravated, she could no longer perform her duty. The tongue was very foul, coated with a deep crust of fur, moist; skin intensely hot; anxious countenance; tympanitic abdomen, and some tenderness in both epigastric and cœcal regions; bowels torpid. Ordered an emetic. Hyd. chloridi, gr. v.; hot bath; hyd. c. creta, gr. iv. nocte manequet.

24. Prostration very great; skin hot and dry; bowels moved by the pill; excretions very offensive; tongue still very foul, but moist at edges, dry and brown in the centre; urine high-coloured and scanty; pulse 84, soft and weak; abdominal distention relieved, though the cœcal region is yet sensitive. Hirudines xij. abdomini; to be followed by hot cataplasms renewed every hour.

25. The abdominal symptoms were much relieved; tongue dry, covered with brown sordes; bowels moved, most offensive and dark-coloured dejections; no sleep; great restlessness; skin hot; pulse 106, small. Pulv. ipecac. c. gr. v.; hyd. c. creta, gr. v. 4tis horis. Port wine, 3iv.; milk and arrowroot, beef-tea, &c.

The two following days exhibited manifest increase in the typhoid symptoms; very low; bowels relaxed; no pain or distention of the abdominal parietes; petechiæ appeared; tongue dry and brown; opiates at night, and increased quantities of port wine.

On 27th was much worse; passed a restless night; low muttering delirium; incontinence of fæces and urine, former almost black, and most offensive; temperature of the surface below the natural standard; bedewed with cold, clammy moisture; pulse scarcely perceptible; a glutinous, tenacious secretion filled the mouth as fast as removed; the pulse became scarcely perceptible; the eyes glassy and suffused; cold sweats broke out over the whole surface. She continued to sink, and died at half-past five P.M. on the 28th.

*Post-mortem Examination twenty hours after Death.*—Body very fat; large amount of abdominal obesity; brain healthy; lungs and heart healthy; external aspect of abdominal viscera healthy; stomach, internal surface; mucous membrane of lower curvature finely injected; duodenum and jejunum free from any inflammatory appearance. In the ileum some few patches of fine capillary injection, and some of the Peyerian glands enlarged and reddened. Cœcum finely injected. At the commencement of the colon, and throughout its extent to the lower sigmoid flexure, the entire mucous surface was of a deep madder red. The folds (plicæ) of the large intestine, at their prominent or marginal edges, were rough, and of a greenish brown olive colour. The mucous surface was very pulpy, and had a marked gangrenous odour, but no trace of ulceration could anywhere be detected.

CASE 7.—M. M., aged thirty-two, hospital nurse.

Feb. 27. Stated that six days since was taken ill, suffering from rigors, sickness, giddiness, anorexia, headache, and great prostration. She had nursed the last case, and, during the progress of it, had more than once been recommended to give up her duty, as it was noticed that she was too ill to attend to her duties efficiently, and, moreover, had from the first expressed her dread of fever. On the 28th, the day of the death of the last case, she was placed in Hallett Ward. The skin was hot and dry; the tongue foul and much coated, moist; pulse 108, soft and weak; no sleep for the last fortnight; bowels open twice last twelve hours; some abdominal tenderness in the region of the cœcum and colon. Hot bath. Hyd. chloridi, gr. vj. statim. Haust. purgans si opus sit.

March 1. Bowels moved; excretion most offensive, and olive-coloured; abdominal pain not abated; tongue furred and moist; skin hot and dry. Twelve leeches to the abdomen, and linseed cataplasms. Mist. ammoniæ acetatis 3j. 4tis horis. Hyd. creta c., pulv. ipecac. c., sing. gr. v. ter die.

2. No improvement; pain on pressure in the parts indicated undiminished; pulse fuller. To repeat the leeches.

3. Felt much relieved by the leeches; tongue has a clean aspect, but the abdominal pain is not

removed; bowels moved, very noxious evacuation; urine scanty and deep-coloured; skin hot.

4. Restless night; pain in cœcal space more aggravated; indications of ptialism. Twelve leeches to the right iliac region; powders to be omitted; opiates at night, and emollient enemata.

Continued much the same during the next three days; great prostration; some delirium at night, and, notwithstanding the opiates, great restlessness at night. The enemata did not improve the character of the evacuations. She now vomited a large quantity of a light green fluid, but without any apparent relief to the symptoms, which were evidently becoming typhoid. Port wine with bark and acid and increased nutriment, were administered, and for a day or two with temporary advantage. On the 7th she rallied a little; tongue became cleaner and moist; there was less thirst, more consciousness; some few hours' tranquil sleep. On the 8th the abdominal pain and distention had nearly abated; the alvine excretions assumed a better appearance, but vomiting again supervened. On the 9th her powers again began to sink; wandering; low muttering delirium; bowels much relaxed, passed involuntarily; countenance flushed; eyes glassy and suffused; unconscious; the opiates and stimuli were continued. Again, on the 10th, deceptive appearances of improvement appeared; some sleep, and return of consciousness; stomach quiet, and able to take nourishment largely; petechial spots appeared on this evening; pulse very small and feeble; again the countenance became sunken; eyes fixed and glazed; a wheezing, gurgling respiration; skin bedewed with a cold, clammy moisture; petechial eruption evanescent—subsiding one hour and appearing the next; pulse became intermitting; total unconsciousness, and she sunk and died at eleven P.M. on the 11th.

No post-mortem could be obtained.

CASE 8.—A. P., aged forty-two, a night nurse of St. Margaret's Ward.

Feb. 28. For the last four days has suffered from frequent rigors, gradually-increasing bodily weakness, thirst, anorexia, depraved taste, and general symptoms of fever. Has slept but little for some nights past; the abdomen is distended and full, particularly in the duodenal and cœcal regions; tongue very foul with creamy fur, moist; skin hot but moist; bowels open; pulse 106, soft. Ordered an emetic. Hydrargyri chloridi, gr. vj. statim; warm bath; salines. Ten leeches to be applied to the abdomen, and large linseed cataplasms to be repeatedly renewed.

March 1. Felt somewhat relieved, less thirst; but on March 2, having passed a sleepless night, suffered from further accessions of febrile symptoms; tongue becoming parched and dry; skin intensely hot; abdomen still distended and sensitive in the spots first indicated. Anodyne fomentations directed to the abdomen. Hyd. c. creta, pulv. ipecacuanhæ c., aa. gr. v. ter die. Milk and arrowroot, beef-tea, port wine 3ij. daily.

3. Slept much better; abdominal uneasiness much relieved and almost disappeared; tongue cleaner and moist; skin cooler and bedewed with secretion; pulse 106, small; great prostration, thirst, and anorexia continue; bowels well moved; motions very offensive.

During the next three days the symptoms became again aggravated; there was incoherence, increasing prostration, dry, brown, parched tongue, with wakefulness. Opiates and increased quantity of wine.

6. Faint indications of ptialism; bowels well purged, highly offensive evacuations; pulse 100, fuller, with more power; tongue not so dry. From this day to the 10th, her symptoms oscillated between typhoid depression and struggling remission; a restless night followed by a few hours' refreshing sleep; a brown, dry tongue one day, a moist tongue the next; the skin, however, became cool and of a natural temperature, and daily improvement in the appearance of the alvine evacuations gave confidence to a favourable prognosis. The pulse continued high, 100 to 120; the bowels continued free; there was occasional return of uneasiness and fulness in the duodenal and cœcal regions.

On the 12th, more permanent symptoms of im-

provement appeared. The infusum cinchonæ with dilute sulphuric, and an improved diet with porter, hastened on her convalescence, and by the first week in April she returned to her duty.

CASE 9.—M. A. B., aged nineteen, a servant. After being some weeks in the hospital for an inveterate form of lepra, on the 2nd of March complained of headache, abdominal tenderness and uneasiness, rigors, and great prostration; there was a furred tongue, thirst, and irregular bowels; offensive excretions, hot skin, and small, hard pulse. Twelve leeches to the abdomen, repeated linseed cataplasms to follow. Hyd. c. creta, c. pulv. ipecac. co., ter die.

The leeches relieved the abdominal tenderness, which was confined to the region of the cœcum; but, much headache being complained of, she was cupped on the temple with apparent benefit. During the following three days no progress was made; the headache recurring at intervals; the abdominal pain disappearing, but the tension continuing; the bowels acted freely, with offensive dejections; hot, burning skin; pulse 106 to 110, feeble; dry, red tongue; thirst; intellectual faculties undisturbed, and sleeps at intervals.

From the 5th to the 11th, the symptoms became more aggravated; the abdominal tenderness, especially in the cœcal region, urgent; pulse 106 to 112, very feeble and oppressed; a further application of twenty leeches, followed by hot cataplasms to the abdomen, was attended with benefit; the mercurials, with Dover's powders, were also continued, without any symptoms of ptialism appearing. At this period her mental faculties became dull and stupified; the eyes glazed, inexpressive, and sunken; countenance pinched; could be roused to answer questions; there was no sleep, but passive wakefulness, much emaciation, and great prostration. Ordered beef-tea, double strength, milk, and arrow-jelly; port wine and porter, if necessary. To these was added the infusum cinchonæ. Notwithstanding these nutrients and tonics, no progress was made towards a favourable prognosis; low, muttering delirium, with increased abdominal tension and uneasiness on pressure, became apparent; the pulse was 120, small and thready; tongue parched, and dry sordes collected about the teeth and lips; frequent dejections, most offensive and dark-coloured; urine scanty, high-coloured, sp. gr. 1.026, with excess of uric acid compounds.

On the 12th of March the elevated temperature of the surface had abated; the pulse had become softer, and fallen to 100; mental consciousness had returned; the eyes were still suffused, glazed, and inexpressive, but she recognised those about her; tongue dry and red, but moist at the sides; sordes still collected about the teeth; the thirst was not so urgent; sleep at intervals. A fever drink, made with hydro-chloric acid and lemon peel, and sweetened to taste, was ordered to be given *ad libitum*. Opiates at night.

On the 13th, the countenance had become more expressive; pulse firmer and softer; tongue, though dry in the centre, was moist at the sides; skin of moderate temperature; bowels freely open; abdominal tension diminished; bears pressure without finching. Opiates at night continued.

On the 15th, diarrhœa supervened; the evacuations watery, bilious, and not so offensive; the symptoms appeared relieved; she became more conscious; sleep was more refreshing; expressed herself as being sensible of relief; and the pulse was firmer and fuller, though still 100.

Two days afterwards, on the 17th, the stomach became very irritable, and vomiting of a bright sea or apple green fluid continued at intervals for two days. A copious action of the bowels was obtained by a full dose of the hyd. chlorid. gr. vj., which seemed to determine the bilious excess downwards, and the vomiting ceased. The pulse fell to 88, soft, but firm; the abdominal uneasiness disappeared, the bowels still continuing relaxed.

From this date to the 20th, the report-book indicates that these symptoms of improvement were not maintained. Irritability of the stomach occurred again and again, and was only checked by attending to the alvine evacuations and soothing the abdominal system by oleaginous and terebinthinate enemata.



On the 21st, a period of improvement again manifested itself. The abdominal tension had again disappeared, and, no vomiting having occurred for twenty-four hours, she was ordered quinine with additional quantities of port wine and nutrients. The countenance began more permanently to improve, and she slept at longer intervals with evident advantage to her physical powers. Her convalescence proceeded slowly, disturbed only by frequent and violent paroxysms of spasmodic pain in the muscles of the lower extremities. Her strength was not established, nor her convalescence complete, till the last week in April—a period of eight weeks occurring between the onset of the fever and her complete restoration. The leprous eruption disappeared during the progress of the fever, and had not reappeared on her departure from the hospital.

CASE 10. E. C., aged twenty-nine, in service.

On March 4th, was seized with rigors, severe headache, great prostration, anorexia, thirst, and general symptoms of fever. The tongue, on admission was furred and moist; the skin hot and dry; abdomen tumid, and sensitive on pressure over the cœcal region; pulse 106, small and feeble; intolerant thirst; bowels open twice in the last twelve hours; hot fomentations were applied to the abdomen. Hyd. c. creta c., pulv. ipecac. co., aa. gr. v. 4tis horis. Cupped to eight ounces from the temples. The headache was relieved by the cupping; but on the 7th, the abdominal tenderness continuing, a turpentine enema was administered with relief to the abdomen. The tenderness, however, continued; skin very very hot; pulse 106; tongue inclined to become dry; great physical prostration, with mental indifference and low moaning.

The symptoms became more and more aggravated during the following three days; restless nights, with increased abdominal uneasiness; relaxed bowels, with offensive dejections; want of sleep; dry tongue, and low delirium. Ammoniated salines; opiates at night, with vinous stimuli, were employed, with occasional terebinthinate enemata.

On the 10th the symptoms had become somewhat less severe; abdominal tension and tenderness less urgent; bowels relaxed, but secretions less offensive; tongue dry; incoherence, but the pulse was firmer and softer; the skin still retained its febrile heat, and much thirst. The hydro-chloric acid lemonade was given, and afforded much relief to the craving thirst.

On the 11th, menstruation appeared, accompanied by an abatement of all the symptoms; the tongue became moist, and there was less thirst; but petechiæ were observed on the trunk and extremities; the symptoms in two days, however, again relapsed, and on the 17th the ward-book states—the countenance dull and inexpressive; mental unconscionness and incoherency; eyes glazed and suffused; tongue dry, brown, and parched; sordes accumulating about the teeth; pulse small and wiry. Ordered infus. cinchonæ 4tis horis; morphia draught at night; port wine, and milk and arrowroot.

For the next day or two the symptoms remained much the same; great prostration with occasional remission of the worst symptoms; diminished abdominal tenderness, and improved excretions. On the 19th the tongue still continued dry and brown; the bowels moved daily; low pulse, and dull, pinched countenance; then occurred vomiting of a green bilious fluid (apple green). After this the symptoms underwent a remarkable change for the better, and on the 23rd was so much improved as to be able to take an egg, and on the following day fish diet. Some trifling gastric uneasiness occurred at intervals, but convalescence progressed favourably till the 2nd of April, when a severe attack of erysipelas first appeared on the left cheek, passed to the right, rapidly extending to the scalp. The appearance of this eruption changed the character of all her symptoms, and, though it retarded her convalescence, yet so completely changed the aspect of her constitution that all gastric and abdominal symptoms totally disappeared. The erysipelatous inflammation ran its usual course, producing no apparent constitutional disturbance, and, giving rise to no symptoms but those of the local irritation, the ordinary treatment was pursued;

vesication was succeeded by desquamation of the cuticle; the bark and acid were not suspended during the progress of the erysipelas. She gradually gained her strength, and was reported convalescent on the 15th of April.

(To be concluded in our next.)

REFLECTIONS AND OBSERVATIONS  
ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 86.)

“Nemo mortalium omnibus horis sapit.”

INSANITY VITIATES ALL ACTS.

It is calculated that there are at least 20,000 insane persons in England and Wales, although not half of this number are under confinement; but of those actually registered more than two-thirds are paupers. According to the Metropolitan Commissioners' Report of 1844, there were 11,272 lunatics, at that time, confined in England and Wales.

Insane Persons.	Males.	Females.
11,272	5,521	5,751
<hr/> 3,790 private patients.	<hr/> 1,989	<hr/> 1,801
7,482 paupers.	3,532	3,950

So that this table shows an excess of insanity amongst females of 4 per cent. in the aggregate, but of nearly 12 per cent. amongst the paupers. This difference, as respects the higher and lower classes, is supposed to arise from the circumstance of females in private life being more frequently detained and under treatment in their own homes, while when a pauper female becomes insane she is almost immediately sent to a lunatic asylum. But, in examining the aggregate of British asylums for a series of years, there is an excess of men, in some amounting to 25, 30, and even 40 per cent.:—in the county of Dorset alone has the number of women exceeded that of men. For an interesting statistical table, showing the numbers and proportion of each sex, out of 71,800 cases admitted into various asylums. see the “Journal of the Statistical Society,” p. 313, for the year 1844 : showing that the proportion of men admitted is nearly always higher than that of women. In a metropolis, there is an excess of female lunatics, and the proportion is unusually large in Paris ; but, in the aggregate, men are found more liable to become insane ; and not only are women less predisposed than men, but their probability of recovery is much greater, and their chance of death much less.

Out of the 11,272 under confinement, 2,519 were considered curable; of these 1,045 were private, and 1,474 pauper, patients. There were 8,736 incurable cases, being 4,331 males, and 4,405 females. Of epileptics there were 951, idiots 598, homicidal patients 278, suicidal cases 696.

Of the 11,272 there were 3,165 married, 6,328 single, 1,138 widowed, not known 409.

These consisted—of the upper and middle classes 2,704, agricultural 1,652, artisan and in-door 3,868, others 2,816.

257 were criminal lunatics, and 233 had been found lunatic by inquisition.

[For a paper on the comparative prevalence of insanity at different periods, together with a table and two coloured chronological charts, showing the relative proportions of each successive year, by Dr. Powell, see "Medical Transactions," vol. iv., p. 131.]

Insanity is either cured, becomes chronic, or terminates in death. Recovery generally occurs within the first month, and if more than six months elapse, the chances of cure become very much diminished. The mean time of cure is considered by Pinel to be five or six months, while Esquirol and Tuke estimate it at rather less than a year. When insanity is not cured, it often terminates in death before the expiration of the second year; the mean average of the duration of the lives of the insane being materially shortened.

The deaths in asylums will be found double the average of that of the community at large, and, in some instances, even four times as great.

The diseases with which insanity is often complicated are, phthisis, and organic disease of the brain, heart, liver, spleen, and intestinal canal.

*Table of Maladies of which Lunatics Died.*

Fever, atonic (adynamique) .....	32
Fever (ataxic) nervous .....	14
Brain fever.....	23
Slow nervous fever.....	25
Pleurisy .....	12
Phthisis .....	28
Peritonitis .....	13
Scurvy and colliquative diarrhœa ...	38
Hydro-pericarditis .....	11
Scirrhus of pylorus .....	4
Organic disease of the liver .....	35
Apoplexy .....	33
Epilepsy .....	4

Total . . . . . 277

The mortality is found to be greater in the autumn, during the months of September, October, and November, than in December, January, and February; and about the same number die during the other months of the year.

*Mortality as to Seasons.*

March, April, May .....	175
June, July, August .....	174
September, October, November....	234
December, January, February ....	207
	<hr/> 790

*Mortality relative to Ages.*

Bicêtre.		Salpêtrière.	
Men, 1784 to 1795.		Women, 1805 to 1814.	
20 .....	25 .....	58	
30 .....	176 .....	83	
40 .....	215 .....	143	
50 .....	134 .....	173	
60 .....	90 .....	123	
70 and above .....	45 .....	210	
	<hr/> 685		<hr/> 790

The average of recoveries depends very much upon the periods of admission: thus, where a number of incipient cases are included, the average of cures will be high, and *vice versâ*. Amongst the various asylums, the usual average of cures is said to be about one in three; in Bethlehem, from 1684 to 1703, two out of three were cured, but from 1784 to 1794, scarcely more than one in three recovered; while from 1820 to 1833, more than one half were cured; but this large proportion appears to have arisen from a very rigid rejection and exclusion of chronic cases. In the Stafford Asylum, from 1818 to 1828, about 39 in 100 recovered, and at the Wakefield Asylum about 42 in 100.

In the French hospitals M. Equival states, that of 5,352 admissions, 2,757 were cured; and out of 12,592 admitted into the Salpêtrière and Bicêtre, including idiots, epileptics, and paralytics, which, be it remembered, are excluded from Bedlam, there were 4,968 cures; while he states that, out of 16,516 admissions into asylums in England, only 5,918 were cured. In France more *incipient* cases are admitted than in England; the formalities are less, and I believe there are no rejections; a patient may be admitted at all hours, and not be obliged to wait until the sitting of a weekly board. Every one knows that early treatment is most essential, and therefore, if a patient cannot command suitable accommodation and attendance at home, he ought, at the public expense, to receive the required assistance on the first moment of attack.

Cures have been most frequent in Paris, then London, then Germany and Prussia.

In private practice the average of cures is much greater than in public institutions: thus, Dr. Willis had 9 recoveries out of 10, if treated within three months, while Dr. Finch had 61 out of 69. Dr. Burrows cured 221 cases out of 242, where recent, and 19 out of 64 chronic cases. Dr. Prichard averaged 7 recoveries out of 8.

### Table of Cures.

ENGLAND.		Admissions.	Cures
Bethlehem Hospital, from 1748			
to 1794	.. ..	8,874..	2,557
" "	in 1813	422..	204
Saint Luke's, from 1751 to 1801		6,458..	2,811
Retreat, near York, 1801 to 1814		163..	60
Totals		16,516	5,918



FRANCE.			
Charenton, from Nov., 1798, to July, 1800	..	97	33
" " 1803	..	499	161
Salpêtrière " 1801 to 1805	1,002	..	407
" " 1804 to 1813	2,005	..	1,218
" " 1806 to 1807	531	..	286
" " 1812 to 1814	891	..	413
M. Esquirol's establishment, 1801 to 1813	..	335	173
Totals	5,352	2,757	

Table of Cures obtained at the Salpêtrière during ten years.

Number of Entries.	1804.	1805.	1806.	1807.	1808.	1809.	1810.	1811.	1812.	1813.	1814.	Total.
209	64	47	7	4	3	2	..	1	1	..	..	129
212	..	73	54	4	2	2	1	..	..	..	1	137
206	..	..	78	49	10	3	1	1	1	..	..	143
204	..	..	..	60	55	11	1	..	2	..	..	129
188	..	..	..	..	64	57	4	2	1	..	..	130
209	..	..	..	..	..	48	64	9	4	1	2	129
190	..	..	..	..	..	..	48	51	7	1	3	110
163	..	..	..	..	..	..	..	44	30	8	3	85
208	..	..	..	..	..	..	..	..	75	41	11	127
216	..	..	..	..	..	..	..	..	..	50	49	99
2,005												1,218

hope must not be utterly abandoned, even when insanity has been of such long duration. Dr. Greding mentions that he had an insane patient in his workhouse who was eighty-five years of age, and where his mental affection had continued more than forty years.

After sixty years of age, recovery is rare, and is by no means common even after fifty; and it may be considered the younger the patient, and the more incipient the case, the greater is the chance of cure. Patients seldom recover suddenly, but generally have lucid intervals, which gradually become longer and longer. More recoveries take place between twenty and thirty; they are more rare after forty; but cases are not utterly hopeless, even after fifty or sixty years of age.

Insanity is not only more curable in women than in men, but more men than women die insane. Dr. Thurnham states that there was an excess of mortality on the side of men, at the York Lunatic Asylum, of 93 per cent., and at St. Luke's of 96 per cent. The excess of mortality in men amounted to 72 per cent. at Hanwell; to 71 per cent. amongst the "curable" patients at Bethlem; to 63 per cent. in the metropolitan licensed asylums for paupers, and to 57 per cent. in those for private patients; to 57 per cent. at Glasgow; to 56 per cent. at Lancaster; to 46 per cent. at Woodbridge; to 34 per cent. at the Retreat, York; to 29 per cent. at Tiegburg, near Bonn; to 13 per cent. at Worcester, U.S.; and to 9 per cent. at Schleswig, Holstein.

I am unable to say whether the above calculation refers to the numbers of patients actually admitted, in equal ratio, or simply to the number of admissions, because, as was before stated, more insane females are kept at home, and die at home, than males; and consequently, unless these tables give an equal number of cases in both sexes, they do not afford any more information than the simple fact, that so many have died; and they do not indicate the comparative proportion of deaths.

In pauper asylums a mortality exceeding 12 or 13 per cent. must be considered very unfavourable, while one that is less than 10 per cent. may be considered highly favourable. The mortality of Bethlem and St. Luke's is annually 11.86 per cent.; in the Crichton Royal Institution, out of 173 cases, there were 22 recoveries and 12 deaths; in the Dundee Royal Asylum, out of 243 patients, 18 were cured, and there were 14 deaths; in the Belfast Asylum, out of 377 cases, there were 40 deaths; whereas in the Montrose Asylum, out of 262 inmates, only 12 died.

Taking the average of two or three civilized countries, it will be found that nearly an equal number of men and women are attacked; but it is noticed in large towns, that the number of females afflicted with insanity exceeds that of males, and this is accounted for by the demoralizing and baneful effects of prostitution. M. Esquirol has

Insanity has continued twenty, thirty, and even forty years, and a cure has occasionally occurred when a person has been insane for twenty years; but, of course, such cases are rare, and form the exception. Mr. Hitch attended five patients who had been insane ten years, of whom two were cured in six months, one in nine months, one in ten months, and one in twelve months; and he also attended a patient who had been insane forty years, who was cured in four months; in three other cases a recovery occurred after eleven, seventeen, and even twenty years. Now, these cases show that all

stated that a twentieth part of those admitted at the Salpêtrière are prostitutes, and these constitute the very worst and most hopeless cases, as, owing to their previous excesses, the constitution is sapped, and they speedily pass into dementia and become paralytic.

It is observed in France that more women become insane than men, whereas formerly more men were attacked than women. Both in London and Paris there is an excess of female lunatics.

#### Calculation of the Proportion of Lunatics in Large Towns.

London	.....	1 in	200
Paris	.....	1 in	222
Milan	.....	1 in	242
Florence	.....	1 in	338
Turin	.....	1 in	344
Dresden	.....	1 in	466
Rome	.....	1 in	481
Naples	.....	1 in	759
St. Petersburg	.....	1 in	3,133
Madrid	.....	1 in	3,350
Cairo	.....	1 in	30,174

A very great difference is noticed between two provincial towns in France: at Rouen, the proportion being one in 461, while at Marseilles it is said not to exceed one in 2,000.

#### Table of Sexes.

	Men.	Women.
1756, Raymond, at Marseilles	50 to	49
1786, Tenon, at Paris	..	500 to 509
1786 to 1794, at Bedlam	..	4,992 to 4,882
1807, at St. Luke's	..	110 to 153
1802, Bicêtre and Salpêtrière, Pinel	1 to	2
Berlin	..	1 to 2
Vienna	..	117 to 94
1812, Pennsylvania	..	2 to 1
At the Retreat, near York	67 to	82
1807 to 1812, at several hospitals in France	..	488 to 700
1802 to 1814, M. Esquirol's establishment	..	191 to 144
	6,519	6,618

So that, when taking the average of several countries and communities, the difference is less than would at first sight be conceived; and it is extremely probable that the average number of those so attacked, throughout the world, would be in as nearly an equal ratio as is the proportion of the sexes.

#### Influence of Climate.

In Scotland	.....	1 in	403, Julius
Norway	.....	1 in	551
Scotland	.....	1 in	573, Esquirol
England	.....	1 in	666
States of New York	1 in	721	
England	.....	1 in	783, Halliday, 1817
England	.....	1 in	911
France	.....	1 in	1,000, Esquirol

England	.....	1 in 1,000, Halliday, 1829
Provinces on the Rhine	.....	1 in 1,000
The Low Countries	.....	1 in 1,052
France	.....	1 in 2,000, Parchappe
England	.....	1 in 2,000, Burrows
Italy	.....	1 in 3,785, Esquirol
Italy	.....	1 in 4,879, Brière
Spain	.....	1 in 7,181

In savage and low life, insanity may generally be traced to physical causes; but in more civilized life, and amongst the educated classes, it more frequently results from metaphysical, mental, or moral causes. It has been also observed that the more acute the sensibility, the more brilliant the mind, the earlier does insanity attack; and hence the higher become affected earlier than the lower classes, and women, from their greater susceptibility, are attacked at an earlier age than men.

The doctrine of Dufour, that insanity depends on disease of one or more of the external senses, will not detain us; and the example he adduces to prove it need not be further mentioned, than by stating, that thousands of persons suffer from cataract who have no single symptom of insanity. Nor can we agree with the opinion of Dr. Uwins, that nervousness and insanity are identical; it is very true that many cases of insanity depend on extreme nervousness, especially if of long duration, but still there is a wide distinction between them; and to hold the opposite opinion might prove very prejudicial to the general interests of society.

M. Pinel found moral causes to produce insanity more frequently than physical, in the proportion of 464 moral to 219 physical.

#### Occurring in five years:—

Mania	.....	Moral 285	.....	Physical 165
Melancholia	..	148	.....	46
Suicidal	..	31	.....	8
Dementia	..	26	.....	31
Idiotic	..	26	.....	31

Le Journal de Physique, Sept., 1808.

#### Table of Moral Causes.

Salpêtrière, during 1811 and 1812.	M. Esquirol's Establishment.
Domestic trouble	105 Domestic trouble 31
Disappointed love	46 Disappointed love 25
Political events	14 Political events 31
Fanaticism	8 Fanaticism 1
Fright	38 Fright 8
Jealousy	18 Jealousy 14
Rage	16 Rage 0
Misery—Reverse of fortune	77 Misery—Reverse of fortune 14
Wounded self-esteem	1 Wounded self-esteem 16
Disappointed ambition	0 Disappointed ambition 12
Excess of study	0 Excess of study 13
Misanthropy	0 Misanthropy 2
	323 169

#### Physical Causes.

Salpêtrière.	M. Esquirol's establishment.
Hereditary	105 Hereditary 150
Convulsions of the mother during gestation	11 Convulsions of the mother during gestation 4
Epilepsy	11 Epilepsy 2
Disordered menstruation	55 Disordered menstruation 19
Following confinement	52 Following confinement 21
Critical time	27 Critical time 11
Age	60 Age 4
Stroke of the sun	12 Stroke of the sun 4
Blows or falls on the head	14 Blows, or falls on the head 4
Fever	13 Fever 12
Syphilis	8 Syphilis 1
Mercury	14 Mercury 18
Intestinal worms	24 Intestinal worms 4
Apoplexy	60 Apoplexy 10
	351 107

M. Esquirol found the proportion in mania to be 321 from moral, and 209 from physical, causes.



In melancholia, 207 moral and 165 physical; and in dementia there were 195 from physical, and only 40 from moral, causes.

## MANIA.

## Moral Causes.

Salpêtrière.		M. Esquirol's own Establishment.	
Women.	Men.	Women.	Men.
Domestic chagrin . . . . .	62	9	Domestic chagrin 20
Reverse of fortune . . . . .	6	13	Reverse of fortune 6
Misery . . . . .	19	0	Misery . . . . . 0
Disappointed love . . . . .	58	4	Disappointed love 14
Jealousy . . . . .	4	1	Jealousy . . . . . 8
Wounded self-esteem . . . . .	1	15	Wounded self-esteem . . . . . 7
Fright . . . . .	36	1	Fright . . . . . 6
Rage . . . . .	2	1	Rage . . . . . 1
Excess of study . . . . .	0	10	Excess of study . . . . . 0
183	56		62

## Physical Causes.

Salpêtrière.		M. Esquirol's own Establishment.	
Women.	Men.	Women.	Men.
Hereditary . . . . .	88	38	Hereditary . . . . . 37
Masturbation . . . . .	8	6	Masturbation . . . . . 2
Menstruation . . . . .	27	0	Menstruation . . . . . 11
Puerperal . . . . .	38	0	Puerperal . . . . . 19
Critical period . . . . .	12	0	Critical period . . . . . 8
Abuse of wine . . . . .	14	4	Abuse of wine . . . . . 0
Exposure to the sun . . . . .	2	3	Exposure to the sun . . . . . 0
Burns . . . . .	12	2	Burns . . . . . 0
Falls or blows . . . . .	8	1	Falls or blows . . . . . 2
Mercury . . . . .	2	2	Mercury . . . . . 1
Suppression of itch . . . . .	3	1	Suppression of itch . . . . . 0
Ditto of ringworm . . . . .	2	2	Ditto of ringworm . . . . . 6
Suppressed ulcers . . . . .	1	0	Suppressed ulcers . . . . . 0
Fever . . . . .	3	4	Fever . . . . . 1
Apoplexy . . . . .	0	1	Apoplexy . . . . . 1
132	26		51

## MELANCHOLIA.

Physical Causes.		Moral Causes.	
Suppression of menses . . . . .	25	Domestic sorrows . . . . .	60
Critical age . . . . .	40	Reverse of fortune . . . . .	48
Following accouchement . . . . .	35	Disappointed love . . . . .	42
Blows on the head . . . . .	10	Jealousy . . . . .	8
Onanism . . . . .	6	Fright . . . . .	19
Dissipation . . . . .	30	Wounded self-love . . . . .	12
Abuse of wine . . . . .	19	Rage . . . . .	18
165		207	

## DEMENTIA.

## Moral Causes.

Disappointed love . . . . .	1	4
Fright . . . . .	4	3
Political events . . . . .	0	8
Wounded self-love . . . . .	0	3
Misery . . . . .	5	0
Domestic grief . . . . .	8	4—40 cases.

## Physical Causes.

Irregularity of the catamenia . . . . .	11	4
Critical age . . . . .	39	6
Following accouchement . . . . .	5	3
Falls on the head . . . . .	3	0
Advanced age . . . . .	46	3
Fever . . . . .	1	2
Suppressed hemorrhoids . . . . .	0	2
Mania . . . . .	14	4
Melancholia . . . . .	13	2
Paralysis . . . . .	3	2
Apoplexy . . . . .	3	2
Syphilis—abuse of mercury . . . . .	6	8
Dissipated life . . . . .	0	6
Abuse of wine . . . . .	6	0
Onanism . . . . .	4	7—195 cases.

Subsequently, in 1818, M. Esquirol found that the moral causes, as inducing insanity, were as 4 to 1 as compared with physical causes.

It appears that insanity does not depend upon the restraints imposed by celibacy, but usually results from the vices and excesses to which the unmarried in France are addicted. M. Esquirol states, that where one case of insanity arises from abstinence, one hundred result from excesses.

Of the number of patients admitted into the Retreat, near York, two-thirds, or 66 per cent., had never been married: these consisted of 64 per cent. for men, and 68 per cent. for women; and of those who were married one-fifth had never had offspring. But it is to be remembered that many of these persons were not married, because they were insane, several of them becoming insane before marriage is usually contracted.

In France, where insanity is so much on the increase, opinions are speculative: that which is solid and substantial is neglected, and the *spirituel* is the watchword of society.

Nothing can be worse for a country than the constant change of dynasty, and, while freedom of thought should be permitted, yet it is unhappy, indeed, when such liberty permits the propagation of opinions not resulting from judgment but from mere caprice. The great fault in the French character is excessive love of change: there is no fixedness of principle, no fixedness of purpose. In those countries where freedom of thought and action is forbidden, insanity is very rare; but wherever there is excitement, change, uncertainty, there mental disease abounds.

Insanity is much more common in civilized than in savage life; nor is this to be wondered at, when we reflect upon the vices of refinement and of luxury; the chagrin, disappointment, and intriguing of the parasite of fashion; the ambition, the speculation, and the jobbing of men of commerce; the severe and often premature mental exercise, and the sedentary slavery, of those connected with letters: added to all the jealousies, vexations, anxieties, and cares to be met with in every class of society: these, together with an uncontrolled state of the temper and of the passions, are always tending to increase the number of the insane.

The constant state of excitement, the late hours, the discontent, ambition, intrigue, the love of dress, in short, the excess of every kind which is to be found in fashionable life, all contribute to debilitate the mind and body; and, did it not happen that something like cessation does occur during seven months of the year, thousands more than are already victimized, would be annually sacrificed.

In rural life, even, there are evils of much greater importance than a superficial observer would imagine: what with domestic disagreements, village scandal, the bitter quarrels and feuds of neighbours, and the unhappy consequences of unrestrained passions and of disappointed love: the numbers of the insane consequently become much more augmented than would by a cursory observer be thought possible.

There seems to be a peculiar and hereditary tendency not only to develop the disease, but, what is still more remarkable, is that there appears to be an hereditary periodicity: thus a son is observed to become insane at forty, whose father manifested the same disease at that identical age; and a mother may give birth to several children who each develop the disease on the approach of puberty, or on arriving at some other period in later life—it being considered when the threatening, or periodical or critical, time has been passed over, without any manifestation of insanity, that the chances of being affected are much diminished. It is usually supposed that the female parent more frequently and more powerfully transmits the hereditary tendency to this disease, than the male, and this is in accordance with the opinion of M. Esquirol. Like many other diseases, insanity is atavistic—leaping over one generation, and then again developing itself.

Tall persons appear to be more predisposed to insanity than the short; and chestnut hair and hazel eyes are very commonly seen among lunatics: but

CAUSES.	Esquirol.	Charenton.	Bicêtre and Salpêtrière.	Bordeaux.	Turin, 1830—1831.	Turin, 1831—1836.	Gard.	United States.	Palermo.	Caen, M. Vastel.	Dundee.	M. Parchappe.	M. Bottex.
Religion and conscience . . . . .	1	24	91	4	35	21	11	70	23	4	..	8	12
Love—disappointed love . . . . .	25	37	114	6	14	35	27	28	22	3	..	7	..
Jealousy . . . . .	14	18	83	11	11	19	..	5	..	1	..	3	14
Family—affections, domestic chagrin . . . . .	31	278	392	33	12	22	51	110	48	8	4	23	65
Reverse of fortune . . . . .	14	49	150	13	42	25	55	67	30	4	2	19	36
Misery . . . . .	..	..	109	4	..	124	..	..	..	..	..	4	56
Play—constrained avocations . . . . .	..	5	..	2	..	..	2	7	..	..	2	9	..
Reputation—wounded self-esteem . . . . .	16	16	..	..	4	10	..	1	5	..	1	10	..
Pride . . . . .	..	..	139	4	..	3	..	..	..	..	..	..	..
Ambition . . . . .	12	..	70	9	..	..	2	11	8	5	..	..	..
Self-preservation, fright . . . . .	8	35	124	8	11	16	22	3	13	11	1	13	6
Rage . . . . .	..	..	18	9	..	1	2	8	5	..	..	8	..
Arbitrary detention . . . . .	..	..	..	..	..	..	3	..	7	..	..	..	..
Country—political events . . . . .	31	32	..	11	..	1	28	..	..	..	..	3	16
EXCESSES.													
Intellectual—excess of study . . . . .	13	16	33	4	2	14	1	39	4	6	..	3	8
Novel reading . . . . .	..	13	..	1	..	2	..	1	..	..	..	1	..
Sensuality—licentiousness . . . . .	..	146	216	12	..	7	..	..	..	..	..	1	..
Venereal excesses . . . . .	..	..	..	..	..	8	..	..	..	1	..	6	..
Onanism . . . . .	..	52	59	5	10	6	1	55	15	1	..	3	21
Abuse of spirits . . . . .	..	134	414	20	17	76	4	146	9	16	4	46	54
165	855	2,012	156	158	390	209	551	189	60	14	167	288	

The married are less liable to be attacked with insanity than the unmarried, which may arise from the more comfortable, contented, and regular lives the former live; while the latter are subject to more excitement, and frequently to more irregularities. In the "Recherches Statistiques sur L'Aliénation Mentale," made at Bicêtre by MM. Aubanel and Thore, we find there were—

Married . . . . .	130	..	1,084
Unmarried . . . . .	81	..	950
Widowers . . . . .	28	..	207
Not known . . . . .	310	..	1,690
549			3,931

This table is, however, of very little use, inasmuch as the number of cases in which the condition was unknown exceeds that of either the married or the unmarried. Dr. Copland has given a much more satisfactory table, containing the results furnished by Esquirol, Despartes, Jacobi, and Prichard:—

	Despartes.		Jacobi.		Esquirol. Charenton.	
	Salpêtrière.	Bicêtre.	Females.	Males.	Females.	Males.
Unmarried . . . . .	980	492	599	974	193	505
Married . . . . .	397	201	156	176	363	387
Widowers and widows . . . . .	291	59	80	30	69	40



it must be remembered that these are the prevailing colours in every rank of life.

*Table showing some of the External Characters.*

External appearance, moderately stout	122
" " thin	60
" " fat	6
Height " tall	102
" " short	19
Eyes " hazel or brown	102
" " blue or grey	98
" " black	17
Hair " chestnut	118
" " fair, flaxen	39
" " grey or white	36
" " black	31
" " very white (blond foncés)	2

*Table of the Professions, and Manner of Living.*

Observations at the Saltpêtrière.	At M. Esquirol's Establishment.
Labourers	43
Servants	51
Washerwomen	85
Cooks	16
Tradesmen	21
Hawkers	16
Bootmakers	8
Varnishers	5
Total	240
	Husbandmen, farmers 3
	Military men 33
	Sailors 3
	Agents 50
	Students 25
	Managers and clerks 21
	Engineers 2
	Advocates, notaries, and attorneys 11
	Chemists, glassmakers 4
	Physicians 4
	Artists 8
	Total 164
Living in their own houses	192
Prostitution	33
Abuse of wine	26
Masturbation	10
Change of life	3
	Imprudent conduct 6
	Abuse of wine 3
	Masturbation 14
	Change of life 3
	Misanthropy 3
	Ill-directed education 20

(To be continued.)

CLINICAL NOTES.

No. V.

HINTS ON MEDICAL EMIGRATION.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio Janeiro, and Member of and late Honorary Secretary to the Parisian Medical Society, &c.

"In simple weeds foreworne,  
And soiled with dust of the long-dried waye:  
His sandales were with toilsome travel torne,  
And face all tann'd with scorching sunny ray,  
As he had travell'd many a summer's day  
Through boyling sands of Arabia and Inde;  
And in his hand a Jacob's staffe, to stay  
His weary limbs upon; and eke behind  
His scrip did hang" \* \* \* \*

*Faery Queen.*

"Eu que nao conheci a estranha terra,  
Dos mais praticos Mestres informado  
Perguntei, que parage o Sitio encerra,  
E de que gente pode ser pizado;  
E nisto cada qual se engana, e erra  
O que se tem por mais experimentado."

*Poems of VASCO MANSINHO DE INEBEDO.*

It has ever been the case that physicians have been a migratory class; for a number of centuries we find them to have been chiefly Jews, educated in the Arab schools of Spain. Afterwards, the flourishing condition of the Italian schools caused medicine to become so popular a study among the Italians, that the number of physicians in that country greatly exceeding its wants, they diffused themselves over the rest of Europe, and generally formed the leading members of the faculty wherever they appeared. When the schools of Bologna, Padua, and Pavia declined, the Scotch schools were already rising, and now for more than a century the superabundant physicians of Scotland have afforded medical aid of the highest order, and spread abroad the just idea of their country's system of medical education, exceeding in value that of contemporaneous institutions, in almost all the countries of the habitable globe. At present the overcrowded state of the profession in all old countries, and in all its classes, has increased so much the ranks of those anxious to emigrate, that I believe a few desultory hints on the choice of a

country, wherein to seek improvement of their fortunes, will not be ill received by the profession in general; and as I am convinced of the close connection between the material welfare of physicians as a body, and the moral dignity and scientific improvement of the corporation, I trust that the present article may not be judged displaced in the columns of a journal devoted to all the interests of the profession.

The emigrant physician or surgeon must be prepared to encounter many annoyances and serious difficulties of a kind little suspected, and without a firm resolve to adapt himself to circumstances, and to act on all occasions with prudence and equanimity of conduct, he will surely fail. The countries to which the emigrant proceeds, with a reasonable hope of success at the present day, are the British colonies, the Spanish Americas, viz., Peru, Chili, Mexico, Buenos Ayres, &c.; Cuba, Brazil, Russia, Asia Minor; and the best preparation for all, in order to prevent subsequent disappointment, would be to read with care a novel translated from the Russian of Lajétchukoff, and called the "Heretic," being a narrative of the fortunes of a graduate of Padua, who, in the sixteenth century, visited Russia as physician to its Tzar.

In the above enumeration of countries, I have omitted all mention of the United States, and I have so done from knowing that unfortunately the crowd of emigrants with a medical education is such that, the native members of the profession being already numerous in all parts of the Union, the fate of the emigrants is very sad, in most cases a life of struggling poverty awaiting them, and in too many cases in desperation they rush to the southern states, where, in a very few seasons, they fall victims to the pernicious fevers of those states. In British India, also, the prospects of the medical emigrants are bad, the civil population almost universally recurring to the services of the medical officers of the Company's service scattered all over the country. The West India islands were formerly a good field for medical enterprise; but at present, from the untoward effects of the Emancipation Act, they have ceased to hold out inducements to any educated medical practitioner.

The British North American colonies also abound in medical practitioners, and are far from wealthy; and, as a general rule, the higher classes of the civil population of the English colonies call in during sickness the aid of the military or naval medical officers on the station—a custom highly detrimental to the interests of her Majesty's service, in violation of the standing orders of both services, and insulting and injurious to the civil resident medical practitioners. It is my decided opinion, that so long as the higher military and naval authorities shall calmly suffer the medical members of these services to occupy their time for the purposes of private gain, a respectable colonial medical corporation cannot maintain itself, as all the more highly educated emigrants of our profession find themselves supplanted in the more lucrative colonial practice by gentlemen bearing her Majesty's commission, and expected to confine their attention to her interests. The English colonies of Australind, Tasmania, New Zealand, New South Wales, Port Phillip, Western Australia, and the Cape of Good Hope are decidedly preferable as an emigration field; but to ensure success, it is indispensable that the newly-arrived medical man be provided with the means of subsistence for at least one year after landing, as it requires no little observation and judgment to select a suitable place of residence, which will often be hundreds of miles in the interior. To those who can command the sum of £500, which they may invest in sheep or other farming speculation, contenting themselves meanwhile with moderate gains, the Cape of Good Hope is an exceedingly eligible spot. The medical emigrant to this and to all our colonies will do well to abbreviate as much as possible his stay in the larger towns, and especially the seaports, which offer no resources to him, are very expensive places of residence, and are full of sharpers and others, whose object is to live on the local ignorance of the new comer. In the Cape of Good Hope, the best plan

is to go at once into the interior, and live for some time in a small village, or in some farmer's house, even in the country, letting what capital may remain, after the expenses of the first year are reserved, be invested in sheep; and assiduously studying the Dutch language—for it is among the Dutch population of this colony that the best foundations for subsequent credit and fortune are to be made. The Cape is, if anything, too healthy for the views of the medical emigrant; but it is, of all the countries I have visited, that which I would rather choose, *ceteris paribus*, as a residence: it enjoys a climate the finest I know; has for its district or country towns the most picturesque, cleanly, and comfortable country villages I have ever seen; and its Dutch population, and a part of its English, are among the most honourable, virtuous, and guileless of people, and are favourably distinguished by a respectful affection towards members of our profession, as, indeed, has ever happened with the more simple and virtuous people. This we find illustrated in "Les Martyrs," a work full of illustrations, and faithful ones, of ancient manners. "Par Hercule, s'écria Demodocus d'Esculape! Ils sont pieux envers les hommes et connoissent les choses cachées." The Cape, and especially the Dutch part of the colony, is above all others the country where a union of farming pursuits is both compatible with the practice of medicine, and a sure means of realizing a comfortable independence, and of providing for a family. In the Cape, as in most of our colonies, are many valuable civil medical appointments, which, if justly awarded, might maintain a considerably high standard of medical qualification there; but unfortunately the Government ever bestows them without any reference to the professional attainments or social standing of the candidates, thus disgusting and driving from the pursuit of the profession many eminently qualified to adorn it, and verifying the opinion of Xenophon as to the blighting effects of abused patronage:—

Και ἔγωγε οὐδὲν ἀνισώτερον νομίζω

Τῶν ἐν ἀνθρώποις εἶναι τοῦ τῶν ἰσῶν τον

Τε κακὸν καὶ τὸν ἀγαθὸν ἀξιοῦσθαι.

There exist, it is true, medical boards whose ostensible purpose is to protect the interests of the profession, check abuses, carry into effect the colonial ordinances against unlicensed practitioners, &c.; but, unhappily, private interests, dislike of becoming compromised, or other still more unworthy motives, frustrate the objects of their appointment, and render the members justly liable to Schiller's satirical description of corporate bodies or governing committees in general:—"Jæder, sieht man ihn einzeln, ist lieblich klug und verständig. Sind sie in corpore, gleich wird euch ein DUMMKOPF darans." For more observations on this point see the *Medical Times* for Jan. 25, 1845.

I must now, as I omitted it in commencing the paper, earnestly recommend to all intending medical emigrants that they be prepared to act in all cases of surgical or obstetric emergency; in the contrary event, they will find many more obstacles in their way to practice, and, in fact, their usefulness in a new and thinly-peopled country will be materially reduced. All the knowledge and operative skill they can make themselves masters of in oculistic and aural surgery will further contribute incredibly to their advancement.

To those medical men whose studies have been partly made in the continental universities, and whose acquaintance with the French language facilitates to them the acquisition of the Spanish or Portuguese, more especially if they come laying aside all English preconceived notions, and have some knowledge of the world, the Spanish Americas and Brazil offer still greater advantages, although in Brazil success is more difficult from the number of well-educated practitioners now yearly issuing from her own schools. In these countries I have observed that my own countrymen (the Irish), when acting in accordance with strictly honourable and moral principles of conduct, without which no success is anywhere permanent, have generally been more fortunate than English and Scotch. In all these countries, but especially in Brazil, the di-



ploma of Doctor of Medicine is a most desirable qualification, though surgeons are admitted to practise. In all there is an examination, whose chief object is the verification of the diploma, without undergoing which, a practitioner is liable to certain penalties. This examination may be carried on in the language of the country, in Latin, or in French; and in Brazil a thesis in one of these languages must also be sustained. The fees in Brazil, with expense of printing thesis, &c., amount to about £15 or £16. As in the first months of residence the great object is to become conversant in the language, the best plan is to go at once into the interior, study the language, and procure acquaintances among the people, and exact information on the localities where medical practitioners are most needed, &c.; to effect these purposes the immigrant should possess, on landing, a sum of from £80 to £100, although some have done well, especially in Spanish Central America, who landed from merchant ships possessed of literally nothing. It is always more prudent to leave the large seaport towns, where the number of countrymen to be met with impedes much the acquisition of the language, and is otherwise injurious to one whose business is with the natives. In these countries much of success is owing to chance; and the ill event of a case in the commencement of his practice has a serious influence on the future prospects of the physician or surgeon. Great prudence and acuteness of judgment are requisite; and the following instance of what a lucky idea may do for a practitioner's fame is worthy of being universally known; I take it from "Robertson's Letters on Paraguay." The subject of the anecdote was a Mr. Partlett, an English surgeon, who, during the reign of Dr. Francia, appeared in the capital of Paraguay. For some time the opposition of the old Spanish physicians, and the doubts of the public as to his medical knowledge, kept him in the background. It happened, however, that the daughter of a wealthy merchant was one day seized with a pain in the eye which caused her intense agony, and, resisting the remedies applied by the already established practitioners, Mr. Partlett was called. He conceived the lucky idea of examining the eyeball with a lens. On doing this, he discovered, firmly clinging to the cornea, a little insect of a species allied to the *tic*, which infests dogs in Europe; and, with a view to dislodge it, sprinkled on it a few grains of per-nitrate of mercury. This had the desired effect; and, the patient thus instantaneously relieved, Mr. Partlett found an easy introduction to practice, and might have made rapidly an immense fortune, had he not unfortunately contracted dissipated habits, to which he soon fell a victim. At the present moment, the state of public affairs in Buenos Ayres and Monte Video impedes all immigration thither; but, peace once restored, few countries possess greater social or other inducements to make them be selected as a permanent residence. In Brazil it is not difficult for the newly-arrived medical man, in needy circumstances, to find some estate where his services may be required to take medical charge of the slaves on it, and the neighbouring estates: he receiving board and lodging, with from £60 to £150 per annum, according to number of slaves, &c. To the poorer immigrants this is a not undesirable arrangement. Do not let me be misunderstood: I am not recommending emigration to any who do not find themselves driven to it by their circumstances and those of the profession at this moment. Foreign countries do not offer the same rewards or incitements to scientific distinction as London, Dublin, and our larger cities. To the young man who has friends, patronage, and money, I strongly advise patiently waiting at home, if he is prepared for the sort of vegetative existence to which, in his earlier years, he is compelled. To those, however, who cannot wait, and who will not stoop to the practices by which men are wont to force themselves into notice in England, and who need present means of support—to these, on the principle that *ad præsens ova, cras sunt pullis meliora*, I recommend emigration, but not indiscriminately. The younger members of the profession, especially those having the Doctor's degree, will, with some extra labour, find, perhaps, greater advantages, and

more opportunities of social and scientific distinction, in the various countries of America formerly subject to Spain, and in Brazil, than in the English colonial possessions. To those above thirty, who, from their private circumstances, may wish to emigrate (and such will chiefly be found among the class of general practitioners), I decidedly recommend a choice of the English colonies in Oceania and the Cape, especially the latter. But the medical emigrant, having a family, should not depend on his profession alone; unless he can carry out a sufficient capital to stock a small farm, he will find it difficult to maintain himself at first, especially if, from want of good advisers, he is unlucky in not soon selecting a good neighbourhood.

It may not be an unseasonable hint to remark here, that, in the English colonies, the society to be courted is that either of the farmers or landholders, and the trading classes; that of the civil and military authorities, on the contrary, is dangerous, as involving a share in parties political or religious, and highly unprofitable, as their medical attendants are ever necessarily the military medical officers of the station. It is an unfortunate fact, that in the English colonies, and especially among the English population of the eastern province of the Cape Colony, there exist much intolerance of opinions contrary to those of the majority (who are chiefly Protestant Dissenters), much spirit of persecution, and a dislike of refinement in habits and ideas beyond their own. To this spirit obedience must be simulated—*Εἰ Ἀλέξανδρος Βουλεύεται εἶναι θεός, Θεὸς ἔστω*—such is the course to be followed. Opposition in any way to the popular ignorance or bigotry will, in the early stage of his career, bring ruin on the prospects of the practitioner. Russia, to the adventurous and needy, and to those who fear not her inclement climate, offers, in her military medical service, a refuge from want; and, by a continued course of good conduct, much may be done in that country. At present, in Russia, the medical profession is chiefly in the hands of Germans. In Turkey, medical men are ill paid by the public; but as Government appointments are open to foreigners, and as medical men are not numerous, it is not difficult to obtain some medical appointment by the newly-arrived stranger. I have known several who have had employment as superintendents of quarantine establishments, &c., in Asia Minor. In Constantinople itself are several foreign physicians. Italian quacks, however, are the persons who chiefly supply the Turks with medical aid.

From the justly-acquired celebrity which the medical faculty of the University of Edinburgh possesses throughout the world, and which the correct moral bearing and superior scientific knowledge of her *alumni* will, I trust, long continue to maintain, I would forcibly urge on all young men qualifying themselves for the profession, and whose prospects are not certain, the great advantage it will ever be to them to hold a degree from the Edinburgh University, which will be found a sure passport to the respect and sympathy of the learned in all countries. The Brazilian Government lately gave an instance of this, when, in sending a physician to Europe to collect information on the medical policy of various countries, his instructions were, that he should most particularly report on the medical institutions of France, and of the University of Edinburgh, while England was not mentioned. This envoy, Doctor Dominick Marinho de Azevedo, lately returned, and in his report, published by authority, he exceeds his commission, speaking at length of the medical polity of England, but only that, by comparison, the institutions of the *Novæ Athenæ* may stand out in brighter relief. Venerated *Alma Mater*! may events never contradict the prophesy—*Nulla ætas de tuis laudibus conticescet*.

THE GUN-COTTON INVENTION.—In its sitting on the 30th of September, the German Diet promised a reward of 100,000 florins to Professor Schönbein and Dr. Böttiger, if, on the examination of a military commission, their invention was declared to be of a nature to supersede the use of gunpowder.

## HOMŒOPATHY.

By CHARLES EDWARD ORPEN, M.D.,  
Fellow and Member of the Royal College of Surgeons of  
Ireland and England, &c.

It is not commonly known, that the cant phrase of Hahneman, "*Similia similibus curantur*," is a perversion of an aphorism, advanced long before by Linnæus, viz., "*Morbi morbis curantur*," as any one may see in the last page of the "*Genera Morborum definita*, a Carolo A. Linné, &c. &c. Upsallæ, M.DCCLXIII."; that is, in his "*Nosology*," and under the head of "*Theoria*," in note †.

Linnæus's assertion is a truth, namely, that "diseases are cured by (other) diseases," "whether natural or artificial (that is medicinal)"; but Hahneman's dogma is neither complete Latin nor good sense, nor is it true in the universal form in which he states it.

If "*similia similibus curantur*" mean anything, or can be translated intelligibly at all, in reference to the subject discussed, it means "likes are cured by likes," or "like (things) are cured by like (things)." It cannot possibly mean "like or similar diseases are cured by like or similar diseases": for, in the first place, as "*morbi*" and "*morbis*," "*diseases*" and "*by diseases*," are masculine, they could not be understood as the nouns to the adjectives "*similia*" and "*similibus*," "*likes*" and "*by likes*," which are neuter; and, even in the sense in which his followers say they understand his axiom, as the basis of all their therapeutics, it does not imply what they say that it teaches: for, to assert that "like (diseases) are cured by like (diseases)," does not at all express what they want to infer, which is merely that "medicinal diseases, or diseases produced by medicines, and similar to natural diseases, cure the latter": or perhaps *vice versa*.

But, even in this peculiar sense, their dogmatic sentence is not true: for, first of all, there is no medicine whatever that does produce any disease exactly similar to a natural disease; and, even if it did, instead of effecting a cure, it would inevitably aggravate it; so long as it be true, that "like causes, under like circumstances, produce always like effects."

Even if they say, that either "*symptomata*" or "*medicamenta*," "*symptoms*" and "*medicines*," or both, which words happen to be both neuters, are the nouns to be understood for "*similia*" and "*similibus*," it will not in the least mend the matter: for it is not sense to assert that "like medicines are cured by like medicines"; nor is it either sense or true to say that "like symptoms are cured by like medicines"; neither even is it the fact, that "like symptoms are cured by like symptoms"; nor is it found by experience, practically, that any medicine ever produced "medicinal or other disease, similar exactly to a natural disease"; nor is it even the truth, that "medicines produce medicinal symptoms, like the unequivocal symptoms of a natural disease": for let it be observed, that, by "*similia*" and "*similibus*" the homœopaths cannot mean a mere general resemblance, they must mean an exact similarity or identity; not at all such resemblance as there was between the two, coupled as mere human beings, when Hahnemann, in his old age or dotage, said "*similia similibus curantur*," and therefore took a young, rich wife to cure, or rather to take care of him, and shortened his life by the remedy, probably.

What Linnæus meant, however, was not at all what Hahneman said that he himself means, but the direct reverse; for Linnæus says, in the same page "*II. Morbi tolluntur contrariâ causâ*,"—"Diseases are cured by a contrary (or opposite) cause"; which may mean both a cause, producing effects directly opposite and reverse, or producing effects similar, but not identical, and therefore opposing, adverse, and contrary; and to explain his meaning more fully, he adds a sentence, which really states the whole of what is in the least degree valuable or true, in the totality at Hahneman's theory or practice; "*Hanc*" (that is—*tollationem morborum*) "*ut citius natura obtineat, toxica misceantur ingerendis, medicamenta dicta*"; which means, "in order that nature may obtain the sooner this re-



moval of diseases, poisons, under the name of medicines, are mixed with the ingesta, or taken into the body; that is, all medicines are unnatural, and not natural, like food, and may therefore all be called poisons, as producing effects different from those of natural food, and which effects may be called medicinal diseases; and the temporary, artificial, voluntary, and terminable production of these diseased actions, by medicines, will often cure natural diseases, either by inducing a contrary action of the function that is disordered, or the action of some other function, or a somewhat similar action in the same function, by which the diseased action of that function is impeded, or prevented, or worn out, or cured.

But the truth is, that the maxim of John Hunter, that "two actions, whether natural or diseased, and whether contrary or resembling, cannot co-exist and go on, at the same time, in the same body, in the same function, in the same organ, or in the same tissue," contains all that is true, either in Linnæus's aphorism, or Hahneman's dogma, and far more besides; for it is the only and universal basis of the true explanation of all therapeutics, whether medical or surgical, and it explains at once, how diseases are sometimes cured by the natural functions of the body interfering with disordered functions, sometimes by the casual supervision or intentional induction of other diseases, and sometimes by the action of medicines producing specific effects of their own, or medicinal diseases, and so wearing out the diseased actions.

Homeopathy ought to be called humbugology. A friend of mine, a few years since, gave me a homeopathic medicine chest, of Headland's, containing eighty-four bottles, full of their most powerful medicines; and during nearly three years, I tried the effect of every one of them alphabetically, from A, to Z, on myself, sometimes taking one medicine, largely diluted, in small doses, for several days, and sometimes, as in the case of arsenic, bella-donna, and phosphorus, &c., swallowing the whole of the two bottles of their most poisonous medicines at once—that is about 1,600 or 16,000 times the ordinary globule, or part of globule, dose; and I never could perceive the slightest effect from any of them (though I watched most anxiously and carefully), except from the above three medicines; and they only produced a slight feeling of heat, for two or three hours, in my mouth, throat, and stomach.

I have never heard of any physician, who is a rational practitioner on the plan followed for thousands of years, or of any humbugologist on the Hahnemanian plan, who gave such a fair trial to their assertions. And as I had disused for years before, and during the whole time of these trials, all narcotic, spirituous, and fermented liquors, and all spices, condiments, &c., there is not a homeopathic humbugger living, whose body was in such an unexceptionable state, for the experiment, as mine was all through.

Before I made this trial, as an *experimentum crucis*, perhaps, they will say, *in corpore vili*, I did not really believe that any man or body of men could be found who would assert such things as they state, as to the effects of the small doses of their medicines, without some foundation of truth; but I now believe that the whole of their statements, practice, and books, is a system of enormous lying and deliberate humbug of the public for lucre; and I know that it has often the most fatal results, for three of my own acquaintances, and amongst these the person who gave me the above-named homeopathic medicine-chest, have lost their lives by homeopathic humbuggers, allowing the precious time to slip away in doing nothing—that is, in globalizing in these three cases of acute bronchitis, enteritis, and pneumonia—and which might have been sufficient under the old rational plan to have cut short the disease. Two were under my own eyes; one had been formerly a patient of my own, and had been repeatedly cured of the same disease by the ordinary means. Taken ill slightly about Wednesday, the disease progressed to worse on Thursday and Friday; on Saturday evening the humbugger in attendance said there was no danger at all—"Only take the globules, as before." On Sunday morning, when fright made the family call in two

baroneted doctors and surgeons, of the rational school, the patient was moribund, and died shortly after the visit. There was no coroner's inquest; there ought to be one on every case of death by homeopathy,—and a verdict, "Died by the visitation of a humbugging homeopathist."

I have tried eighty-four of their medicines, and I denounce their system and their statements as a shameless tissue of false assertions. Whatever diseases get well under their hands, get well and would get well under any hands, merely by the *laissez-aller*, do-nothing, expectant, Stahlian system of waiting for the *vis medicatrix nature*.

## HOSPITAL REPORTS.

### GLASGOW INFIRMARY,

#### ENDO-PERICARDITIS—RECOVERY.

Under the care of Dr. Watson (ward 3). Stewart Stewart, aged 24; Scotch; hostler; unmarried.

June 28. For a considerable number of years patient's occupation has exposed him to cold, wet, and irregular hours, but has always enjoyed good health until four days ago, when he had violent shiverings, followed by sore throat, cough, dyspnoea, pain in left side of chest, and across upper part of abdomen. Patient's voice is husky, and scarce more than a whisper; breathing laboured; respirations 30; severe cough, with slight mucous expectoration; pulse 104, firm and throbbing; skin dry and hot; face pale, expression anxious; tongue covered with a yellow fur; bowels natural; thirst; appetite gone. Patient is of a spare habit, but seems firm and muscular; has received no treatment except a powder for a diarrhoea; sound on percussion of chest is healthy; breath sound, puerile; impulse of heart is strong; sounds loud and extended. Synchronous with heart's action is a very distinct, soft, rubbing sound, masking natural sounds of organ. It is heard beneath the nipple, to the left of the sternum, and during the time of both heart sounds. All along sternum a distinct bellows murmur is heard with first sound of heart; fauces are red; epiglottis healthy; abdomen full, but soft and free from tenderness, and, on percussion, yields a clear sound all over.

Fiat venesect. ad 3viv.; adhib. hirud. xij. region cardiac.

Rx. Calomel, gr. ij.; pulv. opii, gr. j. ft. pulv. Sumat. 3tia, q.q. hora.

29. Slept tolerably well, and feels more comfortable; pain in left side of chest gone, that in abdomen relieved; speaks better; cough easier, and breathing less laborious; respirations 24; pulse 96, softer; skin cooler; has perspired freely; thirst less; tongue dry; impulse of heart quieter; bruit and friction sound diminished.

Adhib. iterum hirud. vj. region cardiac. Contr. pulv.

30. Continues relieved; unnatural sounds of heart diminished, but still quite distinct; abdominal pain still remains; bowels right; tongue dry; pulse 96, rather full.

Adhib. cucurb. cruent. ad region. infra mamma. sinistr. ut educ. sanguin. 3x. adhib. vesicat. hypochond. sinistr. Contr. pulv. To have milk diet (milk, arrowroot, rice, sago, panada, &c.).

July 3. Some diarrhoea, with tenesmus; pain of abdomen abated; diseased sounds of heart further diminished.

Omittr. pulv. Sumat. stat. ol. ricini, 3vj.; c. tinct. opii min. xx.; hor. somni hab. haust. c. tinct. op. nim. xx.

4. Tenesmus gone. Rept. haust. ut heri.

5. Two stools; pulse 96, very soft; feels faintish.

Post 2dam deject. hab. enema anodyn.; c. tinct. opii, m. xx.; rept. haust. h.s.; hab. q.q. vini rubri 3iij.

7. Bowels again rather loose; still pain under left false ribs; bruit and friction sound still audible, though latter much diminished.

Contr. enemata, haust. et vinum.

9. Bowels right; still feels weak. Augeat. vinum

ad 3iv.; sumat. sulph. quinae, gr. ij.; bis in dies in form pilul. contr. alia.

10. Slight diarrhoea again; pulse 96, very soft; tongue furred, but moist.

Omittr. quina; contr. enemata et vinum.

15. Greatly improved in all respects; pain of abdomen gone; pulse 80, soft; bruit much less distinct, and friction sound nearly inaudible. Contr. vin. et enemata.

Rx. Submur. hydr., gr. vj.; pulv. opii, gr. ij.; divid. in pil. xij. sumat ter in die; introduc. seta in regione infra mammam sinistr.

17. Goes on rapidly improving; pulse 84, of better strength; bowels right. Minuat. vinum ad 3ij.; contr. pilul. To have middle diet—animal food, &c.

29. Has kept very well since last report, till last night, since which has complained of weakness; some cough; slight bronchitic râles in right side of chest. Pills have been omitted for last three days. Hab. statim ol. ricini, 3ss.

Rx. Aq. acetat. ammon., 3j.; aq. distill., 3v.; pulv. tart. antimon., gr. ij.; sumat. 3ss. 2nda q.q. horas solve.

Aug. 2. Improved pulse, 80; bowels right.

17. General health since last report has been nearly restored. At present, pulse 76, soft and regular; no cough or dyspnoea; second sound of heart somewhat prolonged; bruit is heard very indistinctly; friction sound inaudible. Issue discharges well.

Rx. Submur. hydr., sulph. quinae, aa. gr. j.; ft. pil. Sumat bis in dies.

25. Heart sounds seems right; general health good. Omittr. pilul.

28. Dismissed cured.

## MEDICAL TIMES PRIZE REPORTS.

### THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

## SURGICAL CASES.

(Continued from p. 91.)

### FEMORAL ANEURISM.

Thomas Walter, aged thirty, poulterer. Admitted Sept. 17, 1845. Under Mr. Keate.

On the anterior superior part of the left thigh, immediately below Poupart's ligament, there is an oval tumour the size of a large cocoa nut, about five inches in diameter, from above downwards, and six across. The upper part of the tumour appears red, the remainder is of the same colour as the surrounding skin, and there are numerous enlarged veins ramifying over its surface. The leg is cedematous throughout its whole extent. On applying the fingers of either hand to each side of the tumour at once, they are distinctly and visibly moved at each pulsation, but the pulsation is felt most strongly at the upper part of the tumour. The aneurismal bruit can be clearly heard by means of the stethoscope, and the tumour can be almost entirely emptied by pressure.

Countenance sallow; pulse very weak; tongue foul; has had an attack of erysipelas lately; appears out of health at present, and says he has lost much flesh lately; complains of pain in the leg, but not in the tumour; habits very intemperate.

According to his own account, between two and three years ago, he first perceived a tumour at the lower part of the site of the one now existing; this was about the size of a bantam's egg, and did not increase much in size till about six months ago, when it began to make rapid progress, and continued to do so until it attained its present size; it has increased more rapidly within the last three weeks. He can give no reason for its first appearance, and says he never perceived the pulsation, until he saw the fingers of the medical man (who was attending him for erysipelas) raised by it. Pillow to be placed under ham and thigh. Broth diet.

19. The tumour has increased in size since the 17th. Tongue coated, white; pulse very weak.



Ordinary diet; porter, Oss. Consultation, and the operation fixed for to-morrow.

20. The tumour appears tense, and the skin shining; tongue white; pulse weak, the one in the right wrist being much weaker than the one in the left.

Half-past one P.M. *Operation*.—In consequence of the tumour rising as it did, rather abruptly and to some height, immediately below Poupart's ligament, Mr. Keate made a straight incision, about half an inch higher than usual, in order to prevent the tumour as much as possible from being in the way of the operation. The incision was also made more internal than it in general is. The skin and superficial fascia were divided, and in so doing, the superficial epigastric artery was divided, which bled freely; a ligature was applied to this, as well as to one or two other small arterial branches. The tendon of the external oblique was next divided, and then the transversalis and internal oblique; the sheath of the rectus was opened, and a few of its fibres divided, in consequence of the incision having been made more internal than usual. In endeavouring to separate the peritoneum from the fascia transversalis, the peritoneum was wounded, and a small portion of omentum could be seen coming down, and would have protruded if it had not been held back. The external iliac artery was now separated from the vein, and an aneurism needle passed under it; pressure was now made on the artery, and all pulsation in the tumour ceased; the needle was then withdrawn, and the ligature tightened and tied; the edges of the wound were brought together with sutures, some simple dressing placed over this, and a compress and bandage over all. The foot and leg were bandaged lightly with cotton-wool, and the leg slightly raised, to accelerate the return of venous blood.

Rx. Infus. rosæ, f. ʒjss.; tinct. opii, m. xxx statim.

Quarter-past two P.M. Temperature of limb 74 degrees.

Half-past three P.M. Temperature of sound limb 74 degrees; temperature of diseased limb 71 degrees; pulse quick and weak, stronger in left wrist than right.

Six P.M. Has had some sleep; pulse 120, weak; temperature of sound limb 76 degrees, of diseased limb 70 degrees; the left leg and foot feel rather numb and cold.

Eleven P.M. Temperature in both limbs, 76 degrees.

Rx. Tinct. opii, m. xxx.

21. Tongue white, slightly coated; pulse 150, weak, still the same difference of strength in the two wrists; temperature 75 degrees in both limbs; leg feels comfortable; numbness going off; tumour much less tense than yesterday, no pulsation in it; slept several times during the night; suffers no pain.

Eleven P.M. Rep. tinct. opii, m. xxx.

22. One P.M. Pulse 145, weak; tongue still white; bowels very much confined; abdomen slightly tympanitic, but not at all tender on pressure; leg feels comfortable; tumour somewhat diminished in size; there is a little redness of the skin in the right groin, extending up towards the wound, but becoming fainter as it approaches it; bandage loosened a little, as he complains of it being too tight. Passed a very good night.

Rx. Mannæ, ʒss.; tinct. sennæ, ʒij.; inf. sennæ, ʒx. statim.

Six P.M. Has just had a rigor, followed by cold perspiration and sickness; fluid, tinged with bile, being constantly vomited; bowels have not acted.

Rx. Haust. salin. effer. c. magn. sulph. ʒss. 6tis horis.

Twelve P.M. Bowels have acted slightly; sickness continues.

Rx. Haust. salin. efferves., ʒjss.; ammon. sesquicarb., gr. v. in excus.; liq. opii sed, m. viij. 4tis horis.

23, ten A.M. Pulse rapid, weak; tongue dry and brown; sickness continues; bowels have not

acted again; wanders occasionally; has had no sleep.

Two P.M. Rx. Hydrarg. chloridi, gr. iv.; ext. hyoscyami, gr. iij.; ext. colocynth c., gr. iij.; pil. ij. statim sumend.

Five P.M. Bowels have not acted; sickness continues. Rep. pil. ij.

Seven P.M. Rx. Hydrarg. chloridi, gr. v. statim.

Half-past nine P.M. Enema rutæ. This came away without producing any further effect.

Eleven P.M. Rx. Hydrarg. chloridi, gr. x. statim.

Sutures removed; centre of wound slightly open; edges rather red; catap. lini; sickness continues; tongue dry and brown; pulse weak, quick, and fluttering; countenance anxious; no pain on pressing the abdomen; erysipelatous blush on right groin somewhat extended; erysipelas dressing; bowels have not acted.

24. Ten A.M. Bowels have not acted; he has had no sleep; still vomiting the same bilious fluid; pulse 140, weak, fluttering, and irregular; tongue dry and brown; has low, rambling delirium.

Two P.M. Sickness continues; bowels have not acted; less anxiety of countenance, but he has now a kind of careless expression; there is low, rambling delirium, but when spoken to he can answer rationally; pulse 140, weak and fluttering; tongue dry and brown; wound gaping more in centre; edges red and puffy; discharge thin and unhealthy; erysipelas much the same. To have some soda-water and brandy, and beef-tea injections.

25, ten A.M. Much the same, but weaker; has had no sleep; sickness continues incessantly; can retain nothing on his stomach; pulse very rapid, and exceedingly weak and irregular; still in a state of low, rambling delirium.

Three P.M. Sickness continues; still delirious; pulse rapid and weak, scarcely perceptible; extremities cold; has just had an injection of arrow-root, wine, and tinct. opii. He continued in the same state, with constant sickness and delirium, and gradually sunk till six P.M., when he died.

#### SECTIO CADAVERIS.

*Thorax*.—Lungs healthy, somewhat congested at their posterior part; heart rather large and flaccid, otherwise healthy.

*Abdomen*.—The small intestines were slightly glued together in a few places, by a deposit of lymph, the peritoneum covering them being much darker than natural; there was some dark-coloured fluid in the lower part of the pelvis, and behind the intestines. There was a wound in the peritoneum, about two inches and a half in length, corresponding to the external opening in the abdomen; to the edges of this the omentum was quite adherent. The latter had also been drawn through the wound in the peritoneum, and was adherent to the lips of the external wound. The sigmoid flexure of the colon was also slightly adherent to the omentum at this part. There was no appearance of inflammation of the peritoneum around the wound; liver healthy; spleen and kidneys also healthy.

A ligature had been applied to the external iliac artery, about half an inch above the origin of the epigastric. Shortly after giving off the epigastric the artery apparently became dilated gradually for about half an inch, and then was more suddenly lost by becoming continuous with a very large aneurismal sac, which occupied the upper and inner third of the thigh; on opening this sac a large quantity of serum, tinged with blood, escaped, leaving a large coagulum of blood, which was of quite recent formation; at the upper and back part of the sac were several coagula of much later date. The cellular tissue surrounding the artery, about half an inch above and below the part where the ligature had been applied, was sloughy, as well as the whole surface of the wound made at the time of the operation. The cellular tissue extending from this point as far as the posterior surface of the left kidney was also in a sloughy condition, and contained a large quantity of very foetid pus. The surface of the psoas muscle was dark-coloured and softened.

This man's own history of his case is exceed-

ingly vague and doubtful, he having given three or four different accounts. The exact time, therefore, that the tumour had existed could not be ascertained with any degree of certainty; it, however, increased rapidly during the few days he was in the house previous to the operation, and was discovered as stated, by a medical man, a few days before his admission. His habits were exceedingly intemperate, he having been in the habit latterly of drinking thirty glasses of gin daily. When first admitted, the tumour had very much the appearance of malignant disease, and the man's sickly appearance gave strength to that idea; but the true nature of the case was at once manifest when a careful examination was made after he had gone to bed. The man's habits rendered him an extremely unfit subject for an operation, but the rapid increase of the tumour rendered this the only alternative; and such was the rapidity of this increase, that I scarcely think he would have lived as long as he did if the operation had not been performed.

## REVIEWS.

*Chemistry and Physics in Relation to Physiology and Pathology.* By Baron JUSTUS LIEBIG, M.D., &c. 8vo. London, 1846, pp. 116.

(Concluded from page 93.)

"It can be no longer doubted that nature has assigned to the infusoria the important part of being the enemies and opponents of all contagion and miasma; since the most incontrovertible facts have shown that the green and red infusoria are, during their life, and the process of their propagation, sources of the purest oxygen." (P. 66.) Here is another of the numberless instances, with which Liebig's writings abound, of old facts being put forth in the garb of verbal mysticism, and thereby assumed to be novelties. He affects that the infusoria are *specially* adapted to the correction of contagion and miasma. The idea is perfectly gratuitous! What is the ground of his assumption? Simply, that the infusoria give off oxygen! Are they singular in this function? Do not all *green vegetables* give off oxygen in sunlight? Why, then, speak of the infusoria being endowed, as though singly, with the power of counteracting contagion? The notion is nonsensical! Another man, knowing no better, might as justly offer to a credulous set of readers a similar panegyric on a tuft of parsley! But the statement, as Liebig has put it forth, is *not true*. In darkness the infusoria do not evolve oxygen—they *only* evolve it in sunlight. They *themselves* are not the sole source of it; but rather, they are *instruments* by which the *sun's rays* produce the evolution of oxygen! This is just what this astounding passage comes to! But there is another untruth in it! The presence of pure oxygen does *not* correct miasm and contagion. Over and over again, the communicability of pestilential disease has been tried to be prevented by the constant liberation of oxygen near the source of it, and in the majority of instances it has failed. No man in his senses would for a moment think of imputing to oxygen a corrective or neutralizing power over contagious exhalation. When oxygen is of service, it operates on the *individual exposed*, not on the floating material in the atmosphere surrounding him! As for the phrase, "sources of the *purest* oxygen," there is no *variety*, so far as we know, in this gas. From whatever source it may come, one oxygen is as good as another—*oxygen is oxygen* all the world over; other matters may be commingled with it, but the oxygen is still the same—*per se*, it is necessarily *pure*—and the infusoria of Liebig can give out no *better* or *purer* oxygen than we can get from a few green leaves placed in a globe of water in the sunshine, or from a certain action upon chloride of potash in the laboratory.

"In a similar manner, fungi check putrefaction, by converting to their own nutriment the sulphurous and nitrogenous constituents of vegetables—the actual originators of corruption." (P. 67.) This is one of the drollest illustrations of *similar function* we have met with for some time. What



similarity can there possibly be between that action which evolves oxygen gas and that other which consists in appropriating nutritively compounds of nitrogen and sulphur? As for these being the *actual originators* of corruption, Liebig ought to know that there is only *one originator of corruption*, viz., the chemical tendency of the constituents of organic substances, brought into play in consequence of loss of vitality.

"We cannot, according to our usual conceptions, speak of the conversion of the atoms of sugar to the nutritive and respiratory processes of an organic being." (P. 68.) So we should think! The idea of any rational being talking about the atoms of a body being converted to processes!

"No organic beings, or animals similar to fungi, have ever been observed in any other form of separation of sugar." (P. 69.) What can possibly be meant by an organic being—or, indeed, any other being—found in the form of separation of sugar?

"In all cases where the presence of organic beings is not to be shown on investigation, in the contagion of a miasmatic-contagious disease, the hypothesis of these bodies having or taking any share in the process of disease must be rejected as altogether unsound." (P. 73.) Prodigious!! What a terrific combination of words to tell a truth that nobody would ever think of doubting! If organic beings are not found in contagious matter, we must not say that its properties depend upon such beings! Who in his senses would ever think of saying other! A man with empty pockets has got no money in them—put this astounding fact in language difficult to understand, and you make a sentence about as rich in wisdom as the one above quoted.

"Symptoms of fever must not be regarded as the causes from whence it arises." (P. 74.) There is a solemn fact! We wonder whether Liebig means it to stand for a discovery in pathology! Symptoms are the *effects* of a certain condition of body, and the Baron particularly requests that they should not be considered *causes* as well—that is, the *cause of their own existence*! Really it is almost past a joke to have to comment upon such nonsense.

"If we would trace the cause of fever, according to the physical method, and consider that by the co-operation of many, or let us say of two causes, a certain amount of force is engendered in the heart itself, by which the circulation of the blood is affected; then the motion will be regular or normal, if the number of the beats of the heart be equal in every minute, and when the force is thus divided over equal periods." (Pp. 76, 77.) Actually, this rotund, inflated sentence contains nothing more than the announcement that the "*motion of the heart will be regular if its beats be equal*"! This is a very fair specimen of Liebig's extemporaneous discoveries. What he means by *dividing a force over equal periods*, we leave our readers to guess.

"The causes of the effects of motion do not exist in the heart alone; they are distributed in every part of the organism, in the spinal cord, as well as in every individual muscular fibre." (P. 77.) This is logic with a vengeance! *The causes of the effects of motion*—can these causes possibly be other than the motion itself? Whatever be the *effect of motion, motion must be the cause of*! Liebig may not think so, but we beg to assure him that there is no rational doubt about it.

"The cause of motion in a mill, the rotatory motion of the stone, the bolting of the flour, &c., are not occasioned by the wheel, for that is a portion of the mill itself." (P. 78.) What can possibly have prompted Liebig to such silly quibbling, and play of words, as this? Because the wheel (he alludes to a water-wheel) is a part of the mill, ergo it is not a cause of any motion in that mill! The mechanical structure upon which the leverage of the wheel acts, if put into motion, owes its motion, of course, to the wheel. The wheel may owe its motion to the water which pours upon it, and the water owes its existence to oxygen and hydrogen; so that, according to Liebig's reasoning, stones, wheels, and such like things, do not grind flour in a water-mill, as vulgarly supposed, but two gases in chemical combination do it all. This

is what we should call the poetry of physics; or the metaphysics of physics, which would, perhaps, be nearer the truth.

"It is quite certain that an irregularity in the working of the mill may be occasioned by the removal of a few of the wings of the wheel, by which the pressure of the water on these parts ceases; it may also, however, be occasioned by the breaking off of the cogs of one of the other wheels of the mill, when an irregularity of motion will be perceived not only in this wheel, but in every other part of the wheel." (Pp. 78, 79.) We have a particular wish that our readers should con this sentence carefully, especially its concluding part. To offer any comment upon it would be to strengthen the old belief that insanity is catching.

"If the organism engender a certain amount of force in a given time, the motions will be regular if the force proceed from the spinal chord." (P. 79.) By "the organism" we suppose Liebig means the whole body—if this engender the force, how can it proceed from the spinal chord alone?

Here is another sentence, which we quote without comment. As we estimate it, it goes far beyond all reach of criticism:—

"Observation shows that the irregularity of the phenomena of motion is accompanied by a change in the phenomena of heat; in many cases the subjective and objective phenomena of heat rise and fall with the acceleration or retardation of the indications of motion; in other cases, again, both do not recur simultaneously in the same relations." (P. 79.)

At p. 86 we are told that "the force of gravitation gives no rise, in itself, to motion"; and this is illustrated by the following extraordinary specimen of sentimental mechanics:—

"A clock is kept in motion by the weight, but cannot draw it up by itself, and the heat of the sun has as little share as gravitation in the action of a mill-wheel. The water which impels the mill-wheel was previously vapour—the vapour was fluid water. The water underwent evaporation; the vapour, on the abstraction of heat, became again aqueous, and this liquid water falls by the action of gravitation, and continues to fall, until, as in the clock, resistance arrests its motion."

Here, again, we have a jumbling together of old facts in a species of jargon that is little short of childishness. Why tell us schoolboy truths in a pompous paragraph that is intended to impose the belief that it is valuable enough to stand alone? We really expect soon to tumble on the sublime truth that two and two make four. As for gravitation, in itself, giving no rise to motion—what can the man mean? If a stone be thrown in the air, what makes it fall again but the force of gravitation? And what is *falling*, but *motion*?

Space will not permit us to enter further into an analysis of this work. Considering that it is made up of only one hundred and sixteen pages, we think we have given a pretty fair account of it. Had it proceeded from the pen of a man much inferior in intellect and reputation to Liebig, we should have either not noticed it at all, or given it a short criticism and a cut at the same time. But, coming from him, it demanded our attention. We regret to have been compelled to deal with it as we have done—but the cause rests with the author, not with us. Had it been worthy of him, or of any other creditable writer, we would gladly have said so; but, from the specimens we have given, which are only few amongst many we *could give*, had we time, it will be apparent enough that praise, if applied to it, would be only another name for perfidy. In our candid opinion, it is one of the coolest impositions that has been practised upon the public for ages. We have not been able to find a single new fact in it—we have found plenty of old ones dressed in the garb of novelty, and assumed to be new—and its "false facts," as newspapers say, are too many to mention. We are sorry to have to speak thus of a man for whose character we have considerable regard; but we must, and will, tell the truth. If Liebig fancy he is beyond criticism he deceives himself; but he shall not deceive us. We utter these honest facts to him in the hope that we shall find his next production more worthy than the present.

## TO CORRESPONDENTS.

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A Student of Mr. Lane's School returns to the charge with a letter which may, at present, well be spared. He wishes to absolve the lecturers from the responsibility of his note; and, as he has confided his name to us, there can be no doubt that he is the only responsible party.

A Retired Practitioner, who dilates on what he calls "the treachery" of the Council of the Provincial Association, will find the general subject of his note anticipated by another correspondent.

Medicus will find a full account of the improvement he inquires about in Beckmann's "History of Inventions," recently published under the editorship of Drs. Francis and Griffiths.

An Assistant.—A good means of cleaning such glasses is by a small quantity of strong sulphuric acid, or caustic potash in solution.

A Country Surgeon should carry his complaint to Mr. Belfour, the Secretary, College of Surgeons, Lincoln's-inn-fields.

W. W.—The subject of graveyard nuisances has been frequently adverted to in these pages. The facts stated by W. W. are interesting.

Chymicus.—We are not aware that the equivalents of the new metallic elements, didymium, niobrium, and pelopium, have been fixed.

M. J. (New-road).—We believe the improvement on the use of Poultices suggested by Mr. Markwick will be found very useful.

B.—The strictures on pharmacy seem to us written under a misunderstanding both of the law and practice on the subject.

D. writes to us:—"You committed an error (not usual with you), in your answer to a question from A Subscriber from the Beginning, in your last number, respecting the examination at the College of Physicians. You say 'the examination is not practical, and may be in English or Latin at the pleasure of the candidates.' It is not at the pleasure of the candidates, but at the pleasure of the examiners. You are correct in other respects."

## THE MEDICAL TIMES.

SATURDAY, NOVEMBER 7, 1846.

"Si quid novisti rectius istis  
Candidus imperti; si non, his utere mecum."—HORACE.

In continuing our article on the cold-water system, we beg it to be understood that our observations are intended to apply to *principles*, and not to *persons*. We allow to every man what we claim for ourselves—"the freest range of thought and expression." Had hydropathy, as at present practised in this country, kept itself confined to ignorant adventurers unconnected with the profession, such men as Claridge, who, in his book, talks of Carnizini, *de moribus artificum*, meaning thereby, Rammazzini *de morbis artificum*; such men as Mr. Lane, and the



author of "Pelham," who respectively want to get a little money, and a little repute, by specimens of pencilling and poetical touches about rural scenery, and the results of living amongst it; or such men as Herbert Mayo and Edward Johnson, who, though claiming to be of *ourselves*, have long since had that claim disallowed, and who, removed from the hallowed circle of the profession, are enjoying the privileges and honours peculiar to trading under the false colours of continental diplomas, obtainable for something like the cost of an ordinary suit of clothes—had hydropathy, as we have said, been confined to such men, "brothers all," we should certainly have not condescended to make it the subject of a moment's comment. But the case is altogether altered when we find a man of Dr. Forbes's talent, and deserved eminence, giving a grave countenance to this piece of quackery, and covering it with a panegyric which may easily lead the inexperienced and incautious into an unqualified admission of its entire principles and practice. We say thus much, quite unhesitatingly, because, although we are inclined to think that Dr. Forbes had no intention of countenancing the illegitimate practice of rampant hydropathy, yet many of his remarks savour of an undue leaning towards it; and at least we feel assured that the opinions to which he has just committed himself will be stereotyped by the tribe to whom they apply, and their author will be hailed as the disciple and defender of a remedial scheme, which we are confident no sensible or sincere lover of our profession would honour with eloquent approbation. But we have another, and a weightier, reason, for discoursing upon the article alluded to. That reason is, that Dr. Forbes has done our profession, and Preissnitz, a common injustice! He has lauded an ignorant, adventurous German peasant, to the neglect of the members of his own profession, who, ages ago, proved the *full value* of cold-water treatment, inside and out; and he has imputed to this quack a *discovery*, which, at the best, is nothing but an *adoption* from ourselves. If Dr. Forbes had wished to descant upon the medicinal virtues of cold water—in which we would have rejoiced right heartily, for we have no trifling amount of regard for it—he might have done so without the least allusion to the quacks who abuse it: for, had he had no experience of his own, he would have found in the writings of his predecessors in physic, texts *ample* and *accurate* enough for the panegyric of any reasonable pen. Cases, *legitimate* and *well substantiated*, he might have gathered from distinguished physicians and surgeons of his own country, equal to anything to be met with in the history of modern hydropathy, in illustration of the efficacy of cold water. Instead of lauding a German lout with an unscrupulous pen, it would have far better consisted with his erudition and usual good judgment, to have searched into the history of his profession, and from that reputable source to have gathered materials for a panegyric upon pump-water. But as he has failed to do so, or rather, as he has done the reverse, we feel called upon to supply his defi-

ciency in this particular, and to assert, unhesitatingly, the character of our community. Dr. Forbes imagines that Preissnitz has never been anticipated in his treatment of disease; we are inclined to the opposite opinion, and in subsequent articles hope to be able to prove it.

Before entering upon this part of the subject, we will glance at a few of the phrases contained in the article alluded to—phrases which we candidly think ought not to pass uncorrected, or, at least, unregarded. We beg Dr. Forbes to understand that we are not commenting upon *him as an individual*, but upon a series of principles, or opinions, openly given to the world, and which, as public property, are liable to the criticism of whomsoever may choose to make them a subject of study.

In many of these opinions there is a sort of special pleading and question-begging, which surprises us, and lessens very materially the value of the whole. Here is a *levelling* passage!

"For our own part, we avow ourselves to be of such a catholic spirit, and so lowly-minded withal, as to be ready to grasp any proffered good in the way of healing, whosoever may be the offerers, and wheresoever they may have found it. Not merely hydropathy, but even mesmerism, yea, starknaked and rampant quackery itself, may in this sense be a welcome knocker at the gate of physic." (P. 429.) So it seems! Quackery, as rampant as ever strode unfettered and unclothed—quackery, indecent in its utter nakedness—has been knocking long at the gate of physic in the shape of hydropathy, and Dr. Forbes proposes to open the portal that the monster may come in! We should like to know, if once admitted, how we might ever hope to get it out again. The flowery phraseology is pretty enough, but its *principle* is full of danger. Once companion yourself with a visitant like that, and you are tainted for ever.

"Quo semel est imbuta recens servabit odorem Testa diu."

"A welcome knocker at the gate of physic"! Why, the sentence is almost enough to induce a young practitioner of small means and practice, and large debts, not to wait for the "knocking," but to sound the tocsin for all the worm-killing old women and herbalists of his neighbourhood, to come and help him into business! Surely a suggestion such as this is not the one to uphold the independent educational dignity of our profession. But the question involved in it is altogether *begged*. Before throwing out at random an equivocal doctrine like that, Dr. Forbes should have shown that there is, or ever has been, in quackery, anything *worth having* that *ourselves have not already got*. Quacks are, almost without exception, composed of men of inferior talents and acquirements, having no character to lose, not deterred from any feat of daring, risking all upon the kill or cure system, and covering their sins against good judgment and discrimination, by an occasional lucky hit at disease, made at random. But are such men, than those better educated, better informed, and better skilled in safe reasoning, more likely to arrive at useful truths, and more competent to apply them? What opportunities have quacks for acquiring a knowledge of diseases and of

remedies, that we do not possess a thousandfold? But quackery never *originates* anything. All its practice is *adoption*, in which *abuse* enters. The whole history of this public sin can furnish no exception to the fact, that its proceeds are an exaggeration of rational physic. There never was a remedy used by a quack that was not stolen from the legitimate practitioner; there has never been any form or mode of quackish practice that has not consisted in an abuse of some form of legitimate practice. We challenge Dr. Forbes, or any other man, to furnish a single exception to this statement. Even the vaunted hydropathy, as we shall afterwards show, has been *for years anticipated* in every application of it!

Consult and companion quackery for the sake of what you may learn from it! Whoever before heard of such a thing? Besides the chance, and a pretty strong one it is, of being polluted (evil communications corrupt good manners), what do you get at the best from quackery,—sift it, weed it, winnow it as you may? *You get your own again!* After having separated the fouler parts—the falsehood, knavery, puffery, and assumption—you get to a nucleus, which you find has been stolen from yourself, but so filthily disfigured as almost to elude detection! Why analyse a dirty compound to get at a little pure metal, when this latter is ready prepared to your hands, if you will go to a respectable market for it!

Consult quackery for information! How can you easily hope to arrive at the truth, when searching in a quarter redolent of falsehood? Would Dr. Forbes consult the history of Morrison's pills, to learn the necessity and proper application of purgatives? Would he temporarily ally himself with the venders of Blair's gout and rheumatic materials, to find out the virtues of colchicum? Would he do penance before the *manes* of old Parr, to learn the secret of his longevity? Would he make a pilgrimage to the tomb of St. John Long, to discover the services of counter-irritation? Would he play at fire-eating with the sulphurous swallows of brandy and salt, to ascertain the proprieties of stimulation? Would he invoke the shade of Balm-of-Gilead Solomon, to know what a cordial can do for a cold stomach? Would he call Lignum from the grave, to tell him what hichloride of mercury will do for the *popular scorbutus*? Would he be the closet companion of Frank, to divine the usefulness of copaiba, or its oil, in gonorrhœa? Would he be the intimate of Perry and Co. for a moment, that he might see how disguised mercury will affect syphilis? We feel assured that he is the last man in the world to do any such thing. And yet, he is the eulogist of as great a quack as ever lived—a rude boor, whose crack recommendation is his illiteracy—who has palmed upon the public certain usages of cold water, under the guise of novelty, and every one of which, in substance, can be proved to be a copy, or, at least, not to be original. Would Dr. Forbes join the motley group who have gone to Graefenberg to get washed? The many who have stuck here in the mud of obscurity, until wellnigh obliterated, and, after a due Continental ablution, have returned, *affectedly with clean hands*, because



they have been dubbed with a new denomination? We believe no man could be found less willing than himself to make one of such company. Then why panegyrize Preissnitz and his followers? Not a man amongst them is more popular, or has made more money by puffery, than the names above quoted. And their several remedies—their claims to originality—are pretty equal!

## MEDICAL REFORM.

### LETTERS

#### TO THE MEMBERS OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

BY A GENERAL PRACTITIONER.

#### LETTER III.

GENTLEMEN,—We have seen what was the conduct of the Council of the Provincial Association, during the time when it was expected that Mr. Warburton's measure would become law; let us now see what it was in the year 1844, when the Minister of State introduced his measure for the enslavement and degradation of the general practitioners. We shall find that the Council still enunciated the same dogmas, exhorted from the same text, intrigued for the same ends, and employed the same sinister means that have always been subservient to their service. Professing liberality, they have pursued selfishness; intrusted with the general welfare, they have sacrificed it to special interests; advocating good political abstractions, they have upheld growing practical abuses. Selfishness is unchangeable in her features, although she wears many masks. Social interests are a globe of which truth is the centre: each segment of the circle is illuminated by additions from the light within, but, unfortunately, the human mind can embrace only a few segments at a time. By turning the globe, and viewing it in all its aspects, we arrive at a correct knowledge of its numerous relations, and we are qualified to become teachers of its mysteries. The Provincial Association have obstinately declined to turn the globe, because it was not their interest to do so; they have continually fixed their eyes upon one segment, and, since they find it is enlightened by a portion of truth, they are resolved that it shall be considered the whole truth, and deliver their oracles in due accordance with their obstinate predetermination.

Their system must be exploded, its falsity revealed, its tendencies made manifest, its operations arrested, and its wicked injustice intercepted in its aims. Your pirate does not hoist the black flag to entrap his victim: he gives a friendly banner to the breeze; and it is not until his foot is upon the deck, until his hand grasps the helm, and he is master of the ship, that he declares his character and his object. The Council of this Association are thus sailing under false colours, and, if they can succeed in getting around them a sufficient number of simple dupes, they will take the management of affairs in their own hands, and every general practitioner in the country will be *humbled, crushed, and enslaved*. If he continue any longer a member of the Association, he will deserve it.

But let us, gentlemen, examine this precious "STATEMENT," bearing date June 5, 1844, nearly twelve months after the new charter had been granted to the College of Surgeons, and when a great number of the councillors of the Provincial Association

had been created FELLOWS; and at the time that Sir James Graham's obnoxious bill for regulating the affairs of the profession was under consideration. This was the momentous juncture seized upon by the Council for the propagation of their notions, and the evolution of their schemes. It is a matter of the most curious interest to observe how adroitly they turned this culmination of events to their own account.

The statement professes to treat of the various subjects under dispute, and to determine on certain principles essential to a just measure of medical reform.

Now, as *general practitioners*, practising under the sanctions of English law, there is one condition of medical reform, which you can never abandon, and which you have often imperatively demanded—PROTECTION from *unqualified pretenders*! You have staked your cause upon this issue; it is almost the only difficult practical question with which reformers are required to deal, but in proportion to its difficulty is its vast importance. It directly bears upon the interests of the general practitioner; it affects his prospects in life, his success, his happiness, his bread. The struggle with the lay powers is on this ground; and a contest scarcely less severe, but less overt, is carried on between different sections of the profession on the same question. With the Government it is an open fight; with the Scotch and Irish Colleges it is an affair of diplomacy, subtlety, and craft. The Council of the Provincial Association are *the self-interested, hireling advocates of unqualified practitioners in this country, as we shall hereafter prove*.

You have also, gentlemen, insisted with equal energy on the ELECTIVE PRINCIPLE, as the foundation of all just government. *Representation* has been the watchword with which the profession has been rallied and marshalled together to resist the aggressions either of corporate selfishness or ministerial despotism. The overreaching craft of all classes of oppressors has been defeated by men ranged under the twin banners of Protection and Representation. With the former you defend your professional interests, with the latter you fortify your corporate rights. They are the two pillars of medical reform—the two wheels upon which the political engine revolves; they are as the two poles of an electric battery whose approximation reveals the intense powers suddenly summoned into activity. You can scarcely apprehend one without the other; they are two concrete, indissoluble powers, constituting in their totality—Medical Reform. How did the Council of the Provincial WOLF AND SHEEP Association treat these essential questions? We shall see.

There are also two other questions, to which I referred in my last letter, of great importance in a comprehensive scheme of medical reform, but which the general practitioners of England advocate only in a defensive sense—as a choice of difficulties, viz., *a uniform standard of examination, and equal rights*. Abstractedly, what benefit could the recognition of these principles confer on the legally-qualified general practitioner? NONE WHATEVER. *Equal rights—where and how?* Are they collegiate or political rights? Rights of voting in a one-faculty college, or in nineteen separate colleges; or the right to practise in all parts of her Majesty's dominions? Undoubtedly the latter. Are you, general practitioners of England, ambitious of changing places with the Scotch graduate? Beware how you confide in this delusive appeal; stand fast by your own direct and material interests,

and do not play the silly part of the dog in the fable; and, if you do, remember that you will not have erred, lacking an adviser.

How then, gentlemen, will these remarks apply to the *statement* to which I have alluded? There are no signs of haste in this document; on the contrary, it seems to have been prepared with much deliberation and forethought, and with a clear estimation of the heterogeneous elements composing the Provincial Association. It would appear, that it had been considered necessary to achieve two points: first, to conciliate the members by grimace and persuasion; and then to declare for the interests of the dubs and pures, by establishing only general affirmations in medical education and social privileges, merely glancing at the great question of corporate rights.

*The principles reasoned on are the principles excluded in the summing up; and the principles summed up are not the principles reasoned on.* This is the logic and the craft of the Council of the Provincial Association. They may pique themselves on their skill, but we must despise them for their dishonesty. This dialectic hypocrisy, worthy Scotus himself, was doubtless conceived with a chuckle of complacent self-laudation: it is delivered to the world with all the gravity, ceremony, and sanctimoniousness of an accomplished deceiver. Take the following passage:—

After a long argument they say—"The public ought to be protected from the malpractices of ignorant and unqualified persons; and the medical practitioner, after having gone through a prescribed course of arduous study, and complied with all those requirements which the interests of the public demand, has acquired a right to such protection as the law can afford him in the exercise of those duties for which the law requires from him such special qualification."

The necessity of framing some stringent laws that might be enforced against the unprincipled quack could be scarcely better expressed. Standing alone, it is unexceptionable, and it looks very much as if the authors of it were in earnest. This is the reasoning—the body of the argument; the summing up will of course give us the spirit: there we shall get the idea principled, resolved, and reduced to a maxim—if not, why all this reasoning?

Alas! gentlemen, we are not half so wise in our generation as Doctors Hastings and Streeten. Will it be believed that in the recital of principles deduced, as it were from the antecedent arguments, *not one word* is uttered about protection for the medical practitioner?

Hear the oracle speak for itself:—

"A consideration of the foregoing statement will show that the requirements of the members of the medical profession may be summed up as embodying the recognition of these leading principles:—

"Uniform and efficient qualification in every branch of medical science;

"Equal right for all so qualified to practise throughout the whole extent of her Majesty's dominions;

"The adoption of the representative system in the formation of the councils or governing bodies."

Protection—O—O—O—O—O!!

Here are declared, according to the Council of the Provincial Association, the essential—the *only* essential—principles of medical reform! After occupying lengthy paragraphs—nearly, indeed, the whole of the document—in reasoning for the



general practitioner, they finish their lucubrations by concluding *against* him. After telling him *inferentially*, that protection must be law, they entirely *suppress the principle* in their final declaration, and by which alone they are bound, as an enunciation of their principles of action. What vile sophistry! How could we expect otherwise from such men? The Scotch graduate must be served first, and the English practitioner may partake of the crumbs of the feast—if there be any. Let this question be once settled according to the requirements contained in this document, and the general practitioners would be delivered over to the tender mercies of corporation-mongers and scientific mercenaries for, at least, another fifty years. *Will you have it so? Are you still dead to independence? Are you still content to be the slaves of these unprincipled manœuvrers in guile?*

These foxes have burrowed in a slough of words, but they shall be unearthed. I have hitherto called them wolves; they are indeed both. In every act of their career the *cunning* of the FOX has purveyed to the *rapacity* of the WOLF. Again, gentlemen, take the following passage:—

“Without some measure of this kind (*incorporation*) the *general practitioners*—those who are possessed of this primary qualification, and devote themselves to the practice of medicine in all its branches—must remain disunited, inefficient, and without the power of availing themselves of that protection which legal enactment may award to them; and, if *incorporated together*, it is manifest that,” &c.

Does it not strike you, gentlemen, that a separate incorporation, such as the National Institute is worthily striving for, is the thing desiderated? Yet, what has the *Council* done to further it? If words have meaning, if they are not used to darken ideas instead of elucidating them, is it not clear that a new incorporation is advocated for the general practitioners? Granted; then what shall we say to the context? The passage immediately antecedent to this runs thus:—

“It now only remains to point out that, for the better ensuring a compliance with these provisions, and for the giving due effect to them, it appears desirable that the medical practitioners so qualified should be incorporated together into one general body, and that the regulation and government of such corporation should be vested in its *members*.”

“The medical practitioners *so qualified*” must be incorporated into one general body. These two words “*so qualified*” contain the essence of the whole culinary compound. By a reference to a preceding part of the statement, it turns out that the “*so qualified*” refers to all the practitioners in England, Ireland, and Scotland, who shall be duly qualified and licensed to practise medicine and surgery: in short, that all the “*so-qualified*” practitioners in the United Kingdom shall be incorporated into One Faculty! They do not advocate an incorporation for *present* general practitioners, but only for the *future* ones, under new laws. We must, therefore, get medical reform, before we can get this glorious incorporation! This is tolerably absurd and self-contradictory; but what shall we say to what follows?

They have told us that the general practitioners must be incorporated, and they inform us, further—that is to say, if they really mean anything—that this incorporation must be effected by the establishment of *three medical boards* in the three divisions of the empire, for the licensing of candi-

dates for practice! This is the plan with which they conclude their lucid disquisition: modestly styling it a “brief exposition of a scheme of Medical Reform,” “as embracing the *chief points* advocated in the *preceding statement*”!

Consequently, gentlemen, the whole statement comprising a series of arguments for the establishment of a One Faculty, resolves itself into the institution of three MEDICAL BOARDS: the plan, in truth, previously embraced in Sir James Graham's Medical Bills! They have told you that the general practitioners must be incorporated. Is this an *incorporation*? Are the Council of the Provincial Association such inept persons that they do not understand the meaning of the word? *A Government Medical Board an Incorporation of General Practitioners!* But in fact, gentlemen, they do know the meaning of the word; and their only object was to deceive, mislead, and betray their members. Are you yet awakened from your delusion? If not, read what follows. Having settled the constitution of their medical boards, they add—speaking of the Colleges of Physicians and Surgeons—“The two Colleges to remain *at the head* of their respective departments of the profession.” “The titles granted by the College to be honorary, and the connection with the Colleges optional; the power of licensing all medical practitioners being vested in the medical boards.” They sagely add—“By the proposed scheme of medical reform, the profession *would remain as it is at present*, with this difference, that *each department* would be greatly raised in character.

Now, gentlemen, let me ask you, in all sobriety, what is your opinion of the Council of this Association? They have consumed long paragraphs in advocating an immense change—no less than an incorporation for the whole profession in the United Kingdom into a One Faculty—and coolly conclude by telling you, that they propose that the profession should *remain as it is at present!* Are they mad, or are *their members*? The members alone: the Council are merely *selfish and designing*. They are not such genuine fools as to write nonsense without some leaven of craft in it; and their hope was to humbug the general practitioners with a glowing serpentine discourse full of froth and subtlety. I have not yet finished my comments on this disgraceful document, but I have already occupied too much of your time, and shall defer other remarks until next week.

I have the honour to be, Gentlemen,

Yours, very faithfully,

VOX VERITATIS.

P.S.—I perceive thus late—for I am at some distance from the scene of action—that the “head and front” of the offending have the hardihood to attempt, in answer to me, an apology for the iniquities of their Society. The defence would not have been worth noticing but for its misstatements. As it is, I have so much matter in hand that I can scarcely spare the time to dwell on it. I have better work to do, and shall be sorry to leave my track to rebut a side-shaft. Nevertheless, I am ready for any duty that may advance the good cause of the general practitioners of this country. I observe, too, that another periodical, daily becoming more obscure, has endeavoured, by inference, to vindicate the Provincial Association. Doubtless one good turn deserves another. The Provincial Association are the wet-nurses of the Registration Bill! Hence the unexpected sympathy!

V. V.

## MISCELLANEOUS CORRESPONDENCE.

### THE PROVINCIAL ASSOCIATION.

SIR,—I quite agree with your correspondents that the Provincial Medical Association is not the engine likely to lift up the profession. I think well of the motives and respect the characters of those that manage it; but the best of us have our prejudices and personal predilections (generally in very good accord with our interests), and there can be no doubt that the association has been worked for several years past, not on the prejudices or predilections of its general practitioner-members, but on those of its “*pure*” and “*dub*”-members. I admit that this has been done with so much caution and forbearance that the “*corns*” of the general practitioner have been scrupulously avoided, and not trodden on unnecessarily or wantonly; but, then, the real mischief has been done just the same, and perhaps all the more effectually done, because this moderation and these good-natured sort of professions lulled us into a kind of comfortable *coma*. There is no doubt the association could have done a great deal in abrogating that still-existing infamy, the charter given by Graham to Brodie. There is no doubt either that they would have done it, if the association were really in the hands of the general practitioners that support it. The retrospect of misconduct on this important affair is far back enough to make it disagreeable to a man who was in years even in that time; so I will not rake up the no-doings and little sayings they levelled at the most atrocious injustice a respectable body of men ever were exposed to. We were knocked in the head as clean as a whistle, and the association seemed to act as if they had been paid by us just to pocket the affront for us. I'll swear to one fact as confidently as any of which I have not physical demonstration, and that is, if the twenty-one schemers in Lincoln's-inn-fields did not *know* beforehand, and *experience* behindhand, that the Provincial Association would give them no trouble about their “*tour de fripon*,” their little hearts would never have had the courage to have ventured on their gigantic iniquity. Complain, indeed, in earnest! Protest, indeed, in very truth! *Combat*, indeed, with sincerity and energy! How could they? To one half, or nearly one half the Council of our “*Wolf and Sheep*” Association, the iniquity was the greatest godsend that ever occurred to them in the course of their lives. It put them above the herd of surgeons—gave them a brand-new title—and added the novelty of a vote. Imagine “*fellows*” roaring themselves red in the face against a “*fellowship*”! why, what would it be but one of the same kidney picking a pocket and lustily rousing the neighbourhood with the cry of “*stop thief*”? If they did not like the charter, do you think they would ask to set it in motion—pray others, beside Heaven, for one of its practical enactments—and, when they got it, walk an inch higher than they were ever known to walk before in the memory of man? And if the fellows—“*pure*” or “*impure*”—(and, upon my word, I think a pure fellow just as good as an impure one)—pocketed the plunder with as much quiet gratitude as the churchman who cries “*nolo episcopari*” sticking his head into a mitre, do you think his friends, the physicians, see in that fact any very great grounds for kicking up an unprofessional enormity of hurly-burly? Don't they want to get established a distinct, select, consulting aristocracy, for which the low herd—the ordinary, common practitioners—shall hunt up patients in the true jackal (Jack-of-all-trades) style? The fact is, the association is really and truly an invaluable agency for snubbing and keeping down, and putting down, the general body of us. When we pay a guinea to be taken care of by an association, we of course expect it done; and, when the association does not do it, why it is not done—that's all. If we did not pay people to do our work who have an interest not to do it—why, it's just ten to one that we should see about doing it ourselves. Besides all that, what an “*Associated*” ass a man looks to be making a row all by himself, when he is known to have fee'd an association—a kind of orchestra of asses—to do it



for him. If we had not a body to manage us—to direct us—to soothe us—to keep us quiet—and, like the nurse to a child, abuse “the naughty physick, that had spoiled baby’s mouth, so it had”—(after making it take it though)—why, ten to one we should have turned out like men, and have had a good stand-up fight for it. But we were sold—that is, we sold ourselves—and, like wise men, paid money to get ‘em to take the bargain. I wish vastly I could enter into the heart of the F.R.C.S.’s (Eng.) and F.R.C.P.’s (Edin.), just to know how they enjoy the joke of “fi-fa-fumming” and “humming” the general practitioners for so many, many years. Lor! I imagine I hear them:—“Hah! hah! hah!” and again, “Hah, hah! hah!” What a chorus of ‘em! “Did not we do ‘em?” “Hah! hah! hah!” “The snobs would mix with their betters!” “Hah! hah! hah!”

Of course, if one will have a hobby—and associations (what an ominous compound!) just now are hobbies—it’s all right and proper that people should pay for it; but, as I think we have paid enough already for this grand hobby of our mutual self-elevating association, I would suggest that the physicians at our head will be content with the advantage they indirectly won, and secured and perpetuated for their friends, the fellows—and not ask us to pay for our whistle in some enormous corresponding advantage to them also. For example, for the present, I would ask them not to go on pressing for any *English* recognition of Scotch titles or practice got or kept any how, till we make sure that we shan’t be inundated with a race of cheap physicians from that same north, so prolific in all ages of formidable inundations; and, secondly, not to try to force on Government any plan for stopping the dispensing of drugs which, as you have shown, would just leave practice to be shared by “physicians and fellows,” and their druggists. We have paid quite enough to “the fellows” for our hobby, quite; and really we can’t afford an additional dividend to the physicians. It would break our back entirely.

I repeat, Sir, the managing directors of the concern are very respectable; but, as the jealous husband would have “no honest man in his house,” I will have no respectable man in mine (disposing of my fortunes or position), unless his interests are not opposed or apart from mine, but properly identical. No, Sir! No respectable man shall legislate for me, an’ I know it, if the respectable man be a physician or a “fellow.” Mind that, *Dr. Hastings*, physician; mind that, *Dr. Streeten*, physician; mind that, *Mr. Crosse*, “fellow”; and mind that, all ye physicians and fellows.

“UNUS QUORUM.”

P.S.—I “owe” a guinea, but do not mean to pay it. Their “cold volume” I send back with their journals; and if they show that my guinea is fairly earned by anything else, why, I will send that back too! Getting nothing, I pay nothing.

[To the Editor of the Medical Times.]

SIR,—Will you allow me to correct a mistake into which your correspondent “Vox Veritatis” has inadvertently fallen. He says, that the members of the College of Surgeons, almost to a man, applied to the Crown for the abrogation of the recent charter.

Now, the fact is that, with the single exception of the Gloucestershire Medical and Surgical Association, not one member or body of members ever addressed the Crown at all. They contented themselves with fancying they were carrying on a negotiation with the Council, in which, however, the reciprocity was all on one side, for, though they made several applications, not one word by way of answer did they ever receive! The truth is, and I mention it as a curious family idiosyncrasy not to be found in other branches of the human race, the members of the College of Surgeons are fond of being snubbed. They seem to take a positive pleasure in it. Like “the woman, the spaniel, and the walnut-tree, the more you beat them the better they be.” Mere power of endurance will not explain the phenomenon, yet so it is. Take the following brief history of the charter in illustration.

The Council by an illegal process, and for a fraudulent purpose, contrived to procure from the

Queen the offensive charter, intending to follow it up by conferring exclusive legal privileges on the new fellows it would create. Not one soul said a word.

Having obtained the charter, which professed to confer the fellowship as an *honour*, and stimulate the emulation of the members, they proceeded to nominate 300, and among them some of the most deserving members of the profession, but filled up the list with such tag-rag and bobtail, that the truly deserving fellows were thoroughly ashamed of their company. Yet no one wagged a finger.

They then made another batch of 200, most of whom, if entitled to the fellowship at all, ought certainly to have been put into the first list, and not at the bottom. No one made a complaint; no one had the pluck to fling the fellowship in their faces.

The 10,000 rejected, in the meantime, became offended, and the College bully was employed to tell them that they were only fit to deal with “ordinary exigencies,” and suffered to exist because of the “needs of society.” This did, it is true, create a little grumbling, but no one really stirred a step.

To quiet this grumbling the College bully was again put into requisition, who told them to their faces they were only a parcel of apothecaries, and had no title to be called surgeons at all; and yet he was suffered to leave the lecture-room unhorse-whipped!

Then came the examination, and the same members were told, that if they would undergo an examination and pay ten pounds, they might have the *honour* of being put at the bottom of the 500. Many did eat this humble pie, and it is said that some of these heroes are beginning to repent sorely of their bargain.

The remnant contented themselves with entering into a correspondence with the Council, the terms of which I have exposed above. Not one, except the members of the Gloucestershire Association, had the boldness to tell the Queen how her gracious intention had been abused. Had the example been followed the results might have been different.

At this moment the Council are freely met, and consulted with, by the members as if nothing had happened, and, as your correspondent has well pointed out, the fellows, their tools, are governing the Provincial Association! The only explanation is, that the members of the College like to be snubbed.

I am, Sir, your obedient servant,

ECHO VERITATIS.

Gloucester, Oct. 30.

\*\*\* Our correspondent is so happy, both in his opinions and their expression, that the profession would be both served and obliged by the employment of his pen to their instruction more frequently.—ED.

#### A ST. ANDREW’S DEGREE.

[To the Editor of the Medical Times.]

SIR,—Under the head of “Correspondents” I have frequently seen comments relating to the M.D. degree of the University of St. Andrew’s, and the nature of the examination required; allow me on this subject, through the medium of your much-valued publication, to offer a few observations. At the last meeting of the Board of Examiners, in August, I was one amongst the list of successful candidates upon whom the degree of M.D. was conferred, and am, therefore, able to offer an opinion to your correspondents concerning the nature of the examination. As a practical test to a man’s knowledge I consider it superior to that of the Royal College of Surgeons, and Apothecaries’ Hall. This I believe to be the generally received opinion; not that it is my wish in any shape to undervalue the examinations of either Hall or College, but simply to exonerate the University from the heavy charge brought against them some time ago (viz.) of conferring degrees through pecuniary motives, without any consideration as to the acquirements of the candidate—an impression which, it appears, still exists, judging from what was stated in last week’s *Medical Times*. I will not, however, now enter into any detailed account on this topic, Dr. Reid, one of the examiners, having some time since published, in a journal, a full statement, showing that such assertions were

groundless, and that many who had passed the ordeal of both College and Hall (the latter of which gives a legal title to practice) were rejected by their board, being found on examination to possess inefficient professional information. I will not judge harshly as to the relative merits of the three examinations; suffice it to say, the common course of study required by students for the degree of Doctor of Medicine at the University of St. Andrew’s is a more extended one than that required by the London College of Surgeons. A knowledge of the Latin language at St. Andrew’s is essential; not so with the mere surgeon; and certainly, as to the honour and distinction it confers, there cannot be a second opinion but that it stands pre-eminent. Trusting the foregoing remarks may be deemed sufficiently cogent to eradicate any sceptical impressions from the minds of all those who feel ambitious to share its honours,

I am, dear Sir, your obedient servant,  
DR. OCTAVIAN ROYLE, M.R.C.S. and S.A.C.

APOTHECARIES’ HALL.—Gentlemen admitted members Oct. 29:—Messrs. John Barrow and Edward Henry Chalk.

NAVAL APPOINTMENTS.—Assistant-Surgeon Francis Anderson, to the Sappho; William White, Surgeon, to the Geyser; Edward W. Pritchard, Acting Assistant-Surgeon, to the Victory; John Tucker Ross, Acting Assistant-Surgeon, to the Victory; Narcissus C. Hatherby, Assistant-Surgeon, to the Alarm.

OBITUARY.—On the 29th Oct., in Upper Gower-street, George Mann Burrows, M.D., F.L.S., in the 76th year of his age. On the 29th ult., Richard Martin Esq., surgeon, of Chatham, Kent, aged 67. On the 29th ult., Mr. Honeywood, surgeon, of Queen-street, Cheapside, in the 55th year of his age. On the 25th of September last, on board the Trent, at Grenada, in the West Indies, aged 36, Henry Shore, Esq., surgeon of the Royal Mail Steam Packet Company’s ship Reindeer, and formerly of Sheffield. Died, Oct. 16, at Woburn-square, aged 68, William Bexill, Esq., M.D., formerly of the island of Barbadoes. Lately, in France, M. Payen, Surgeon-in-chief of the port of Toulon. In Paris, M. August Berard, Professor of Clinical Surgery in the Faculty of Medicine, Paris.

#### MORTALITY TABLE.

For the Week ending Saturday, Oct. 24, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES.....	882	1000	968
SPECIFIED CAUSES...	882	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	182	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	92	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	125	151	157
Diseases of the Lungs, and of the other Organs of Respiration.....	261	313	294
Diseases of the Heart and Blood-vessels.....	35	29	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	64	70	72
Diseases of the Kidneys, &c.	13	8	7
Childbirth, Diseases of the Uterus, &c.	25	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	10	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	1	2	2
Old Age.....	46	66	67
Violence, Privation, Cold, and Intemperance.....	22	27	26



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## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

Meeting of Nov. 2; M. MATHIEU in the Chair.

MORBID ANATOMY. MICROSCOPIC RESEARCHES, BY DR. C. ROBIN AND DR. MARCHAL (DE CALVI).

Morbid productions may be divided into two classes: in one the component elements are the same as those which naturally exist in the system; in the other these elements are totally different. The former are called homo-morphous, the latter hetero-morphous, elements. Microscopists have hitherto described seven hetero-morphous varieties, viz.,—1, the pus globule; 2, the pyoid globule; 3, the globule of granulation; 4, the globule of colostrum; 5, the fibro-plastic globule and fibre; 6, the cancerous, and 7, the tubercular, globule.

Five varieties of homo-morphous elements are at present known to us; these are,—1, the element of fibrous tumours; 2, of lipomata; 3, of epidemic or epithelial growths; 4, of sebaceous, and 5, of melanin, productions.

In hetero-morphous elements, M. Robin and M. Marchal have never found any enveloping membrane, nor any true cell. The substance observed has always shown itself in the shape of an homogeneous mass, of different form in each variety of tumour, and of proteic nature in all. The fibro-plastic element, which has more particularly attracted the attention of the essayists, consists of a special globule and fibre: they are characteristic: 1, of the vascular swellings of the conjunctiva; 2, of the fibrous tumours of the breast; 3, of the subcutaneous cellular tumours of the limbs; 4, of the cellular intermuscular productions; 5, of the periosteal tumours, of fungus of the dura mater, condyloma, lupus, and particularly of indurated chancre.

## ACADEMY OF MEDICINE.

Meeting of Nov. 3; M. ROCHE in the Chair.

NUX VOMICA IN THE TREATMENT OF CHOREA, BY PROFESSOR TROUSSEAU.—Two considerations induced Professor Trousseau to exhibit preparations of nux vomica in the treatment of St. Vitus's dance. The first is the constant presence of incomplete paralysis of one half of the body in this malady; the second is the usual result of the exhibition of strychnine, namely: the production of tonic muscular contraction. Thirteen cases have been submitted to this treatment—ten with complete success. The extract is an uncertain preparation, and strychnine is almost insoluble; Professor Trousseau, therefore, rejects them both, and employs the sulphate of strychnine dissolved in syrup, one grain to 3ijss.; 3ijss. of the medicated solution are at first exhibited daily, in three doses; and the quantity is every day increased five grammes, or 3j½, until itching of the scalp and slight muscular stiffness are observed. The cure is generally completed in one month.

THE PLAGUE.—After a long debate on the 7th

conclusion, in which no new arguments were brought forward, the meeting adjourned at five without coming to a vote.

## HOTEL DIEU.

CLINICAL LECTURE, BY PROFESSOR CHOMEL.

In the treatment of disease, it is important to support, as much as possible, the hopes of the patient: thus, in a case of consumption, you will avoid the prescription of medicines which your patient has seen employed in phthisis. In chronic disease, you must take the greatest care that the sufferer does not discover you are exhibiting only palliative medicines: this would dishearten him and remove all chances of relief. When you have to deal with incurable disorders, where no hope can reasonably be entertained of a recovery, painful medicines or applications must be avoided in general; but, if you find it necessary to raise your patient's courage, recollect it is better to give him a little unnecessary pain, than to abandon him to the tortures of despair.

It is not usual that all the symptoms of disease should increase simultaneously: when one of them, therefore, becomes more severe, take occasion to point out the diminution of others, and thereby remove the patient's attention from the aggravation of that important sign which justly causes his uneasiness. Do not congratulate him on the absence of any particular symptom, such as diarrhoea, anasarca, &c., which may at a future day supervene in the progress of the case, because you could not get out of the difficulty without a contradiction of your former assertions, which a penetrating patient will not fail to set down to its proper cause.

Avoid calling attention to circumstances which have passed unnoticed, such as the fetidity of a discharge, the presence of blood in motions, cedematous swellings of the extremities, &c. Recollect that, even when it is not in your power to relieve pain with drugs, it is your duty to console your patient, and to sympathise with his sufferings; and that medicine, according to the definition of an eminent lawyer, is an art which cures sometimes, relieves oftener, and consoles always.

A physician has an arduous duty to perform, and a difficult part to play, when it falls to his lot to warn his patient of imminent danger: it is, perhaps, desirable that the task should be performed by one of the relatives; but the habit of attendance on the dying furnishes the physician with the means of breaking the fatal announcement as gently to the sick man as it is possible. You will say, for instance, that present danger is but slight, but danger may unexpectedly arise; the healthiest man enjoys no immunity against sudden death, and it is prudent to be prepared even for improbable events, &c.

I cannot sufficiently impress upon you the necessity of weighing every word that escapes your lips in the presence of your patient; expressions which habit may have reconciled you to are the cause of terror in private practice, and often of the most unfortunate results. Allow me to close this

lecture by mentioning a fact which I recently witnessed, and which made a deep and painful impression upon my mind. I was called to a lady affected with cancer, under the following circumstances:—A physician was some time previously consulted, and he informed the lady's husband, a weak-minded man, that the disorder was very serious, though not altogether without hope. A second medical attendant was shortly after called upon, and he clearly told the lady's husband the true nature of his wife's ailment, and added that a recovery was not to be thought of. The husband, maddened by grief and sorrow, shot himself in the presence of his wife and daughter.

OPIMUM LOCALLY APPLIED IN VENEREAL EXCRESCENCES.—Some years since, M. Desruelles recommended the application of a concentrated solution of opium in syphilitic excrescences. M. Vénot, surgeon of the Venereal Hospital at Bordeaux, finds that a solution of 3ijss. of opium in 3j. of water is all-powerful in cellulose-vascular vegetations, particularly when they have a broad basis. But, on account of the immense quantity of opium employed, this application is not devoid of danger; M. Vénot recommends, therefore, as equally active and as perfectly innocuous, the following solution:—℞. Aq. destill., lb. j.; extr. opii, 3ij.; extr. eicutæ, 3j.

## FRACTURE OF THE METACARPAL BONES.

A memoir on this subject, by M. Lamaestre, has lately appeared in the *Journal de Chirurgie*; the following are its leading points:—

The most common cause of fracture of the metacarpal bones is a fall on the closed hand; it is the fourth metacarpal bone which is most frequently fractured. The displacement is almost constantly productive of a protrusion of the fracture on the back of the hand; but M. Malgaigne satisfactorily establishes that this protrusion is entirely due to the displacement of the inferior fragment, which is obliquely forced backwards at the spot of the injury, and dragged down towards the palm of the hand at its phalangeal extremity. As to the treatment of the deformity, Sir A. Cooper recommends a pad to be placed in the palm, and to be fixed there with an appropriate bandage. Boyer advises a splint to be applied both on the dorsal and palmar aspect of the hand, descending down to the extremity of the finger. B. Bell employed a long splint applied from the elbow to the fingers. M. Malgaigne considers these various modes of dressing the fracture as insufficient to fulfil their object, and states them to be injurious on account of the protracted immobility to which they condemn the joints; he places on the dorsal surface of the hand a thick compress, on the spot of the fracture, and over the compress a transversal splint protruding at least one inch beyond either side of the hand. The same application is made to the anterior face of the extremity, only a little lower, in order to press backwards the phalangeal end of the injured bone; the two splints are then closely united at their free extremities. M. Lamaestre has seen nine cases of



fracture, with displacement, satisfactorily treated by this method.

MYELITIS.—CLINICAL LECTURE, BY PROF. ROSTAN.

Four cases of myelitis have of late been admitted into our wards: one terminated fatally, and its anatomical details were laid before you. We will this day remind you rapidly of the symptoms observed in each case, and endeavour to condense them into a general description of the disorder.

The first case was that of a woman, who was admitted to be treated for a state of anemia consequent upon intense hemorrhage; she had been considerably improved by tonics and ferruginous drugs, when she complained of an unusual sensation of cold and weakness in the lower extremities; indeed the loss of power was such that she was unable to raise her legs from the bed, without assisting the movements with her hands. The bladder was soon after paralysed, and in the left leg sensation was completely abolished. On pressure, no pain was experienced in any part of the spinal column, but from the seat of paralysis we concluded that myelitis was present, limited, however, to the lumbar and inferior dorsal regions.

The second case, which occurred under analogous circumstances, differed, however, by the more rapid progress of the symptoms, and by the ascending course of paralysis. The legs were first deprived of sensation and motion; the arms were soon affected in the same manner; delirium and coma supervened, and death was the consequence. On *post-mortem* examination, the chord was found intensely congested, and the membranes intimately attached to the nervous substance in all parts of the spinal cavity.

In the third patient the disease was chronic, and had lasted six months when she was received into our wards. Incomplete paralysis of the legs and of one arm was observed; but the thumb and index finger of the affected hand remained free in their movements and preserved their sensation—a singular fact, which can only be explained by a limited alteration of the median nerve, or by an abnormal distribution of the nervous filaments of the hand. By the application of antiphlogistic measures we obtained a well-marked improvement.

The last case that we shall mention to you, is that of a young man, of a strong constitution, in whom acute inflammation of the spinal chord produced loss of movement of the legs. An energetic treatment was instituted, and by the assistance of venesection and local depletion the cure is progressing rapidly.

In the history of the symptoms of myelitis, their order of succession is of the utmost importance to the diagnosis. At first the patients complain only of weakness of the lower extremities; weakness, which is frequently attributed to causes far different from the true one. Contraction of the limbs is often observed at an early period of the disease. We must also mention trembling of the extremities, sometimes one of the first signs of the disease. Paralysis is more frequent in the lower than in the upper extremities, because myelitis is more commonly observed in the lumbar than in any other region.

D. MCCARTHY, D.M.P.

CUMBERLAND INFIRMARY.—Dr. Henry Lonsdale, F.R.C.P. Edinburgh, was unanimously elected Physician to the Cumberland Infirmary, on the 4th inst., in the place of Dr. Goodfellow, resigned.

On Monday, Nov. 9th, W. Philpot Brookes, M.D., was elected Surgeon to the Cheltenham General Hospital, by a majority of 409 votes.

A DISCOVERY!—Tears have been hitherto erroneously supposed to be secreted by the lachrymal gland—it is the conjunctiva which is the real organ of secretion. In a general way, secreted liquids may be said never to arise from glands, but from mucous membranes; moreover, these liquids are far more dangerous than is generally believed: it is, for instance, the tears which cause all ophthalmic inflammations. We think it only due to the author of so many new facts to publish his name, which he has subscribed to his memoir: it is *Dr. Martini*, of Wurtemberg.

## ORIGINAL CONTRIBUTIONS.

### ADDRESS,

Delivered to the Graduates in Medicine of the University of Edinburgh, on the day of Graduation, Aug. 1, 1846.  
By WILLIAM GREGORY, M.D., F.R.S.E.,  
Professor of Chemistry.

In accordance with the long-established custom, it now falls to my lot to address you, and it is with pleasure that I accept the honourable duty on this occasion.

I have, first of all, to congratulate you on your having attained the object of your ambition, and of your exertions for the last few years. After long-continued and diligent application to the various branches of study prescribed by the University, and after undergoing minute and searching examinations in all those branches, in which examinations you have acquitted yourselves to the satisfaction of the University, that body has found you worthy of the highest honours in your profession, and has, accordingly, conferred on you the time-honoured designation and rank of *Medicinae Doctor*. This, as you know, is the highest recognised grade in the profession; and it has been conferred by this University on so many men who have subsequently become illustrious, that it is matter of just congratulation that *you* have attained it, and that not by favour, but as the due reward of your diligence and devotion to your studies, and, moreover, at a period when the necessary conditions, the examinations to be passed, so far from being easier than in former times, are vastly more stringent, as well as more extended in the subjects embraced.

But, although you have obtained this honourable distinction in a manner so creditable to yourselves as well as to your *alma mater*, you must not look on the attainment of the degree as the termination of your studies. In one sense, indeed, it may be so, since it was an object set before you at the commencement of your University career, and that object you have attained. But, while the degree is the highest honour in our power to bestow, it is still, in reference to the practice of your profession, only the starting-point for independent exertion.

So far from its attainment being the signal for shutting up your books and ceasing to be students, so far from its being in reality a proof of your proficiency in the practical part of your profession, you are to view it rather as authorising you to commence the study of medicine for yourselves. In medicine, perhaps more than in any other department of study, the oldest and most experienced practitioner is only a student; how much more, then, does it become the young graduate to consider himself such?

Nothing is more certain than that medicine cannot be taught in the lecture-room. All that we can teach you is the principles, which will enable you to study nature for yourselves, and so much of their application to practice as the experience of centuries has established. But you will find the latter to be far less than might at first be supposed.

There are sciences in which all that is taught is fixed and ascertained truth. It may be difficult to comprehend, but it exists, and the teacher's duty is to make it intelligible to his pupils. But in medicine, how little is known with certainty! how many points are disputed! how imperfect is the theory! how various the practice!

Even in those branches of science connected with medicine, which have something of the air of exact science about them, the amount of what is really ascertained and fixed is but small. To take an example from my own department. You all know that animal chemistry has, within the last few years, made great progress, and that we all feel that without chemistry true physiology cannot exist. But how little has yet been done for physiology by chemistry, compared with what remains to be done! So imperfect is our knowledge, even of the subjects most carefully investigated by the chemist and physiologist, that we can hardly feel sure that anything is ascertained with certainty.

Thus, in the theory of digestion, which is manifestly a chemical process, and has even been imitated artificially, we cannot feel on firm ground. You will find in all physiological works the process of

chylification explained by the presence of a body called pepsine. Now, this is not the place to enter into a critical investigation of this matter; but I may simply state that it is, at best, very doubtful whether pepsine exists at all.

Again, in all recent works on physiology, you will see protine and proteine compounds making a great figure; and yet I have just read elaborate researches which demonstrate that there is no such compound as the protine of Mulder.

I do not mention these things to draw from them the conclusion that physiology can derive no real aid from chemistry. On the contrary, I hold that to true physiology chemistry is essential; but it must be exact and accurate chemistry; and the above-named instances will suffice to show how far our methods have hitherto fallen short of the degree of accuracy and perfection which is desirable, nay, indispensable.

And if in the chemical department of medicine, which might be supposed likely to partake of the exact character of some portions of the science of chemistry, there be found so much uncertainty, so much error, this must be the case to a far greater extent in those branches of medicine in which no pretence is made to the character of exact science. When we consider how little we really know of the intimate nature of the animal functions in a state of health, it is easy to see how imperfect our pathology must be. We know, with considerable accuracy and minuteness, the structure of the body, and we know also many of the changes produced in that structure by diseases; but as long as we can say nothing as to the true nature of secretion, nutrition, sensation, motion, and the other animal functions, so long must our theories of disease be imperfect, and very likely erroneous.

If, then, you have entertained the idea—and some of you may have unconsciously done so—that medicine is in a state at all approaching to perfection, or that, having finished the curriculum of prescribed studies, you have come to the end of your labours, the sooner such ideas are dismissed from your minds the better. I repeat, that what we have endeavoured to teach you has been only what will enable you to devote yourselves to the investigation of medical science for yourselves. Your career in pursuit of knowledge is not closed: it is opening. You have gained an honourable title; but that title only shows that you have undergone the preparation—the preliminary training—which fits you for entering on the practical study of your profession.

It is a noble profession on which you are about to enter; noble in its objects, and noble in the means by which those objects are sought for, at least by the true physician. It is needless to enlarge on the objects of the medical man. Suffice it to say that no purer or more elevated delight can be experienced by man than that which falls to the lot of the physician, who, by means of his superior knowledge, is enabled to save life and assuage pain, often with no other reward than the pleasure of doing good.

But not only are the objects of the physician noble and elevating, he has, moreover, the advantage of immeasurably the best and most liberal education which is given to the candidates for any profession.

The education comprised in the curriculum which you have gone through, and I am happy to say that you have not limited yourselves even to that very extensive course of study, is not only such as to qualify you for following up your profession, but it is, considered simply as a system of education, far superior to any other in use among us. Compare it with what is required for any other liberal profession, either here or in England, and you will become sensible of the very great advantage which as men you have enjoyed in passing through that curriculum. It is not a perfect education, although much has been done to improve it, but it is in a very high degree liberal: that is, it cultivates not only those faculties which are most in request in the practice of medicine, but, with few exceptions, the intellectual faculties generally; and I hold it to be quite certain that a youth of average ability, who has gone through our course of study for the degree, and done so with diligence and perseverance, has acquired a *status* as a man of general



information and cultivated mind, which cannot fail to be useful to him in after life, and for which he will hereafter feel grateful to his *alma mater*.

When I congratulate you on the attainment of the degree, therefore, I congratulate you on the privilege you have enjoyed of an education at once so practical and so extensive.

It is now your duty to make the best use of your acquirements, so as at once to do honour to yourselves and to reflect credit on the University.

Your first duty is to devote yourselves to your profession. I have already said, that you are not to look on medicine as a perfect science, nor on yourselves as having completed your studies. On the contrary, you are to endeavour, by availing yourselves of every opportunity, to add to your store of professional information. You will not only carefully observe the phenomena of disease and the effects of treatment, but you will also study the works of the most distinguished medical writers, and compare their descriptions with what nature presents to your view. Be assured that, other things being equal, that practitioner will be best appreciated and most successful in his profession who has studied it most profoundly.

When you enter on your profession you will meet with many cases in which, with all your knowledge and all your skill, you will find yourselves baffled. In such cases it is your duty to make trial of every practice that offers a chance of benefiting your patient. This leads me to say a few words on the subject of experiments in medicine. Every time that you administer a drug, or adopt any treatment whatever, you make an experiment; inasmuch as you cannot be quite certain of the result. But the term is generally employed to indicate the trying of a new remedy or mode of treatment with which you are practically unacquainted. In these days new remedies and new modes of treatment are of very frequent occurrence; and the question is, how are you to act? In the first place, you will bear in mind that your plain and paramount duty is to your patient. You have, morally, no choice but to do that which you believe to be best for him. If, therefore, you know of any mode of treatment which you believe certain, or even likely, to effect a cure, you are bound to employ it; and in such circumstances, to try the experiment of a new treatment, the effects of which are unknown to you, or only guessed at, would be criminal. Such experiments you will never try; they would be made at your patient's expense, and would imply a total dereliction of duty towards him.

But in cases, such as I have alluded to, where the disease has baffled your utmost skill, it is not merely allowable, after exhausting the known resources of your art, to try any new mode of treatment which affords a hope of relief, but it is your bounden duty to do this, and if you do not, you are guilty towards your patient, inasmuch as you are not doing your best for his relief or cure.

This, then, is the rule in regard to experiments, properly so called, in medicine. You are not entitled to try them unless all known means of cure have failed, and then you are bound to try them.

I need hardly say that I hold it to be impossible that any of you should ever have anything to do with secret remedies or universal medicines. The former, secret remedies, are altogether unworthy of gentlemen who have had the privilege of a liberal education, and the secrecy has invariably a sordid motive. As to universal remedies, they are so numerous that the wonder is that any disease should be left. It is not to be wondered at that a person ignorant of medicine, and urged by avarice, should affect to believe in their existence, and recommend them to others as ignorant as himself; but it has always appeared to me a very singular phenomenon that men who have had a medical education, and who are acquainted with the human frame, and the very different, nay, frequently opposite, diseases to which it is subject, should for a moment countenance the popular belief in the existence of a universal remedy; as if it were possible that diseases, the effects of different causes, could yield to the same treatment: as if the same remedies could cure diabetes and suppression of urine, diarrhoea and constipation, not to mention the multitudes of

diseases in which the causes, although not opposite, are yet as widely different as possible.

But, while you disdain any connection with secret remedies, always giving mankind the benefit of your knowledge in the treatment of any disease, and while you reject the idea of a universal remedy, you will avail yourself of whatever is valuable even in the nostrums of the empiric. A secret remedy may be efficacious, and it is your duty to ascertain this. A universal remedy, so called, may prove beneficial in some cases: it is your business to discover its true value; and not to jump to the conclusion, that because used by empirics it is therefore good for nothing. No remedy or mode of treatment ever was proposed, however empirically, that had not some good quality or beneficial effect. Be it your business to avail yourselves of what is good in them, while stripping off the veil of secrecy, and destroying the claims to universal efficacy.

In reference to such novelties in practice, as are proposed by scientific practitioners, there is but one safe rule: it is the old maxim, "Do as you would be done by." However startling the statements of the discoverer may be, however much they may shock your own preconceived opinions, you must act so that these opinions shall not deserve the name of prejudices. If what is proposed or asserted professes to be grounded on fact, carefully observed, you are not entitled to reject it on any *a-priori* considerations, nor without a fair, candid, and careful examination of the evidence. If any of you were to make some unexpected discovery by studying Nature, possibly in some of her most obscure and least known departments, according to the true principles of inductive philosophy, and were to announce it to the world, you would not certainly consider it fair to be met by ridicule, abuse, assertion without proof, or at best contradiction grounded on considerations *a-priori*: that is, on the opinion of the critic, as to what is possible, or what ought to be. You would reply, that you only had to do with what is, and that you do not know what is possible or what ought to be; but that what is, certainly ought to be. Such arguments as his could never shake your conviction of the truth of what you had seen and done, any more than precisely similar arguments shook the conviction of Harvey, in the truth of his immortal discovery. Such, I say, would be your feelings, if your discoveries were met in the way I have alluded to. And yet, how often do we see the statements of discoverers who have, at all events, this merit, that they have patiently studied nature, with an ardent desire to ascertain the truth, treated exactly as I have mentioned, if their discoveries, like that of Harvey, are such as shock the prejudices of the world? Let me entreat you, in every case where a discoverer refers you to nature for the evidence of his discovery, to pause before yielding to the first impression, and to put yourselves for a moment in his place. You will then, I am confident, approach the subject, as all questions of fact in natural science ought to be approached, not in a spirit of prejudice, but with the simple desire to find the truth. This is only what is due to the discoverer, and it is the only mode of action in which you can afterwards reflect with satisfaction. Remember that all discoveries must appear strange, nay, almost incredible, when first promulgated; and remember, also, that while the sincere, single-hearted, truth-loving student of nature is certain, as time rolls on, to rise in the estimation of mankind, since truth will always ultimately prevail, there is no character more certain of being consigned to the contempt of succeeding ages, if not totally forgotten, than he who, forgetting the sacred claims of truth and science, rejects a discovery, not because he has shown the facts which support it to be fallacious, but because it clashes with his prejudices, and because, without taking the trouble to investigate for himself, he lays down, *a-priori*, certain dogmata of his own, and presumptuously says to Nature, "Hitherto shalt thou go, and no farther."

I have dwelt on this topic because, unfortunately, in times past, our profession has not always acted in such matters as it ought to have done. The most vehement opposition to Harvey's doctrines

came from medical men; and, even in more recent times, they have not uniformly been superior to prejudice. Jenner was not much better received by the profession than Harvey. Yet, while Harvey and Jenner have long since received their due share of honour and respect, no one ever thinks of the men who so fiercely opposed them.

Allow me to express my confident hope that if you should see a discoverer, a man devoted to the study of nature, borne down by increasing prejudice, you will bear in mind the only principles which ought to regulate your conduct on such occasions, and side with him who appeals to nature, until he shall be refuted by facts.

Let me now say a few words on another topic, namely, your duty to the poor. Here it is pleasant to be able to say, that medical men have never been deficient in benevolence. It would, I think be difficult to parallel, in any other profession, the active, disinterested benevolence so often seen in medical men. Nor is this without its reward, for, besides the internal satisfaction derived from benevolence, there is the additional experience obtained.

But although you are fairly entitled to this, since you attend to the poor gratuitously, yet you must remember that your doing so gives you no right towards your poor patients, which you may not exercise in the case of the rich. You are not, for example, entitled to try doubtful experiments on the poor, any more, or in any other way, than on the rich. In short, if you have a poor patient, that patient is entitled to your best services; and you will be the more scrupulous, because of his very poverty and dependence upon you.

Need I urge on you the vital importance of discretion and of fidelity to the trust reposed in you by your patients. The medical man necessarily becomes acquainted with many things of a very private nature, and is the depository of many secrets. It is sufficiently obvious that any failure in this particular would be most injurious to the prospects of a medical man; but I rejoice to think that the breach of confidence on the part of the physician is so rare, or rather so unheard-of a thing, that no one hesitates to confide his dearest secrets to his physician. May this honourable confidence long continue to be reposed in them.

It has long been, and to a certain extent still is, a reproach to our profession, that we cannot agree; that we are always quarrelling, and in short that that very virulent poison, the *odium medicum*, prevails among us. There must have been some cause for this, if, as I fear we must, we admit the existence of this feeling; and one cause for it appears to be, that rivals in medicine are brought together under circumstances which do not occur in other professions—in circumstances in which the angry feelings are more apt to be excited. But surely we may hope to see an improvement in this respect.

If you carefully observe the duty which you owe to your professional brethren, and if you invariably act towards them as you would wish them to act towards you, surely the unseemly spectacle of the *odium medicum* would no longer be seen among us. It cannot be necessary to enumerate the duties which you owe to your brethren, but I may mention that it would appear that much of the disagreement among practitioners arises more from neglect of the courtesies of professional intercourse than from any serious delinquencies. Every medical man has a right to be treated with respect by his brethren; and, in regard to professional intercourse, I cannot give you a better rule than that to which I have already referred, namely, to do to others what we would wish others to do to us. He who rigidly observes this rule may possibly become the object of evil-speaking; but this is far from probable, and, even should it occur, the arrows of calumny will fall blunted from his armour of candour and truth. Nothing is more certain than that kindness begets kindness in return; and he whose whole life and conduct exhibit an unaffected spirit of kindness towards others, and above all towards his professional brethren, will sooner or later, in the universal esteem, reap the natural fruits of his conduct. Moreover, no medical man ever raised himself in the estimation of the world by speaking



unfavourably of his brethren or rivals. Rely upon it, the world is sufficiently clear-sighted in these matters, and never fails to attribute such evil-speaking to its true origin, and to despise it as it deserves.

I have already said that you are not to look on your education as completed. In fact, as you cannot expect to obtain extensive practice for some years, those years, which are to pass between your graduation and your establishment in practice, are, in reference to that establishment, by far the most important of your lives. Your future career will depend on the manner in which you spend these years. If, during that interval, you devote yourselves to study and observation—if you acquire habits of industry, and, above all, of method—if you allow nothing to divert your attention from your profession, then you must succeed. If you cannot boast of original genius, it is always in your power to exhibit industry and perseverance. On the other hand, the finest talents, nay the highest genius, if not united to industry and method, will do little or nothing for their possessor.

Neither will private influence, or even private friendship, help you on in practice. If you are wise, you will trust to nothing but a thorough knowledge of your profession, and a determination to devote yourselves to it. If you do this, your character will, sooner or later, lead strangers to apply to you, simply because what they hear of you inspires confidence. On the other hand, if you trust to friendship and interest, and neglect the higher recommendations, even those friends who may have encouraged you to trust to private interest will be the first to fail you: for, however they may talk, men are guided in the choice of a physician by their true interest; and, when pressed by disease, fly to the man whom they consider best qualified, without considering private friendship.

Some of you will probably have the opportunity of continuing your studies in other countries, before finally settling down to practice at home. This is a great advantage, for nothing enlarges the mind so much as to study and compare the practice of different countries. Such of you as cannot go abroad will do well to cultivate foreign languages, especially French and German, which contain inexhaustible stores of valuable information on medical subjects.

Of late years great progress has been made in the elementary as well as in the practical branches of medical study, and in the elementary branches perhaps more has been done in Germany than in this country. At all events, the German writers on physiology are most valuable; and, although the chief works may be translated into English, yet even these ought to be read, if possible, in the original; and there are many works, including periodicals, which are not translated.

Such of you as have not yet learned French and German, will never have so favourable an opportunity of doing so; and, if you neglect this now, you will regret it afterwards when it is too late.

I will now conclude these brief remarks with the assurance that your teachers in this University will always take a strong interest in your welfare, and feel a justifiable pride in your success. It will be to us a sufficient reward and a high gratification, if you shall hereafter feel and say, that here you were taught the true principles of scientific investigation, as applied to medical subjects, and that here was laid the foundation of that success which we anticipate for you. May all success attend you, and may you always have reason to look back with satisfaction to the time you spent here, and with lasting gratitude to your *alma mater*.

#### REPORT OF AN EPIDEMIC FEVER THAT OCCURRED IN WESTMINSTER DURING THE WINTER AND SPRING OF 1845-46.

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(Concluded from page 105.)

CASE 11.—E. A. G., aged twenty-three; married. Five days since, was seized with general prostration, rigors, depraved taste, anorexia, and thirst. On admission, March 5th, there was head-

ache; relaxed bowels; skin hot; trifling pain in the cœcal region; abdomen soft, slightly tympanitic; pulse 102, small and cordy; tongue moist, but coated with a febrile fur. Ten leeches were applied to the abdomen, over the situation of the cœcum; a succession of hot linseed poultices to the whole abdominal surface. Hyd. c. creta, c. pulvere ipecacuanlæ comp., aa. gr. v. 4tis horis.

7. Headache continued; bowels moved twice in twenty-four hours; surface of the body covered with petechiæ; abdomen more tense, and increase of tenderness over the region of the cœcum; eyes suffused; face flushed; pulse small, 108; tongue still deeply coated; hot fomentations to the abdomen. Milk and arrowroot, port wine; beef-tea, double strength.

9. Much restlessness; increase of abdominal tenderness; intensely hot skin; pulse 110, small; bowels freely moved; most offensive dejections; tongue much furred; great thirst; anxious, depressed countenance. Ten leeches were applied to the rectum; blood freely obtained; hot cataplasms were laid over the whole surface of the abdomen. Pulv. ipecac. c. gr. x. horâ somni.

10. Restless night; bowels relaxed, but motions of improved appearance; abdominal uneasiness and tension much diminished; pulse 100, fuller and firmer; tongue cleaning, red at the margin and apex.

11. Is reported to be much improved; slept several hours during the night; no abdominal distention or uneasiness; bowels moved twice; pulse 100; temperature of the skin much abated; returning desire for food. Inf. cinchonæ, ʒj. ter die. Port wine; beef-tea. From this period she advanced uninterruptedly to convalescence.

CASE 12.—E. B., aged nineteen; in service.

March 6. Was seized with sickness, headache, prostration of strength, anorexia, thirst, and abdominal pain; the tongue was furred and moist; abdomen soft; but extreme tenderness and fulness about the cœcum; bowels not moved; skin hot; pulse 100, small. Hyd. chloridi, gr. viij. statim. Hyd. c. creta, gr. iij. ter die. Mistura ammoniæ acetatis, ʒj. tertiis horis. Ten leeches to be applied to abdomen; to be followed by a succession of hot cataplasms. Saline purges if necessary.

8. The leeches and cataplasms had materially relieved the abdominal uneasiness; the calomel freely purged the bowels, and brought away hardened and dark-coloured fæces; tongue inclined to become red and dry; skin hot; pulse small and feeble.

9. Restless night; bowels freely purged; skin not so hot; pulse fuller and softer; tongue moist, and thirst not so urgent. Pulv. ipecac. co., gr. x. hâc nocte.

11. But little improvement was observed during the last ten days, except that she slept more at night; there was no delirium; the bowels continued freely purged, with improved evacuations; the stomach, however, became very irritable, and vomiting of a bright apple-green fluid supervened. These symptoms continued to the 12th, when a marked improvement and alteration in the symptoms commenced. The skin became cool; pulse 90, soft, and firm; tongue clean and moist; less thirst; bowels open twice; stomach quiet and retains food, for which there is a returning desire; no epigastric or other abdominal tenderness. Inf. cinchonæ ter die. From this period, with an improved diet, she soon became convalescent; but, from the supervention of some hysterical symptoms, she was not discharged from the hospital till the 21st of April.

CASE 13.—C. J., aged thirty-four, hospital nurse.

March 28. Fell ill five days since, with pain under the scapulæ, across the loins, and erratic pains in the limbs: severe sincipital headache. There is now great physical prostration; foul, furred tongue; hot skin; rapid, oppressed pulse; torpid bowels; abdomen soft, and free from pain. Ordered a hot bath. Hyd. chloridi, gr. viij. statim.

29. Bowels freely moved by the calomel; ex-

cretions offensive and dark coloured. Hyd. c. creta, gr. v. ter die.

30. Headache continues; frequent rigors; bowels still torpid. Saline purgatives, and to continue the mercurials. The bowels became in the evening freely moved.

April 2. Countenance suffused and congested; tongue very foul and coated; abdomen has become tense and painful, particularly on the right side, over of the cœcum. Hyd. c. creta, gr. v.; pulv. ipecac. c., gr. v. 4tis horis. Leeches and cataplasms to the abdomen.

3. Abdomen much relieved of tension and tenderness; bowels relaxed; much blood present in the latter motions.

4. Countenance and general appearance improved; less headache; skin cool; pulse soft; no abdominal tension; states that in the night, at stool, lost nearly two pounds of blood by the rectum, passed in clots; bowels relaxed; much restlessness. Pulv. ipecac. c., gr. x. o.n. Continuatur hyd. c. creta, &c. per diem.

7. During the last three days the symptoms have not improved; tongue dry and parched, intense lobster red; much thirst; great desire for cold drinks, which she is to take *ad libitum*; no abdominal tenderness or distention; pulse small and feeble; some tendency to ptialism; mercurial fœtor; bowels again torpid. To omit the mercurial. Saline purgatives; mist. ammonia acetatis ʒj. 4tis horis.

8. Appeared better; bowels moved; tongue much improved, moist; mild ptialism; diminished heat of surface.

9. A sudden and most unexpected accession of violent, wild delirium, such as is usual in phrenitis; loud shrieking, and violent gesticulations with the hands, and efforts to leave her bed; motions highly offensive, dark-coloured; copious perspiration. Hyd. chlorid., gr. ij.; pulv. ipecac. co., gr. vj. 4tis horis.

10. Restlessness and noisy delirium continued; bowels continued relaxed; skin cool; pulse 120, small; tongue cleaning and moist. Morphine acetatis, gr. j. omni nocte.

11. Slept quietly after the hypnotic; is more composed this morning; countenance dull; eyes glazed; pulse full and soft, less frequent; bowels much relaxed. Port wine ʒiij.

12. Passed a quiet night; diarrhœa ceased; pulse 120. The suffused and injected eyes, and congested aspect of the countenance, have given way to expressions of greater composure and quietude; has taken some nourishment—beef-tea and arrowroot, with evident benefit.

13. Countenance much improved; sleeps longer and is more composed; pulse 108; skin of natural temperature; tongue moist; bowels open; motions of bilious aspect. From this day to the 20th a gradual, though slow, improvement took place; requiring morphia draughts at night; attention to the alvine excretion, and a judiciously regulated diet. Inf. cinchonæ, with port wine in larger quantities, was now given; and from the 24th her convalescence is reported to have commenced steadily, and she then rapidly progressed towards restored health and strength.

CASE 14.—Richard G., aged seventeen. Has been ill nine days; was first seized with rigors, giddiness, prostration, loss of appetite, and thirst.

On admission into Burdett Ward, Feb. 3, there was severe lumbar pain; great thirst; hot skin; pulse 110, jerking and hard; tongue furred and moist; no sleep; bowels torpid; abdomen slightly tympanitic; and some tenderness in the cœcal region. Ordered hot baths. Hyd. chloridi, gr. vj.; opii, gr. ss. statim. Haust. salina purgans, hyd. c. creta, c. pulv. ipecac. co., aa. gr. v. ter die. Ten leeches to the abdomen, to be followed by cataplasms.

4. Has passed a quiet night; some petechiæ had appeared on the trunk; no cough or any pulmonary symptoms; tongue much furred; abdomen much distended; bowels relaxed; tenderness has abated; there was great prostration and thirst; these symptoms continued during the next four days. Opiates were necessary at night,



and enemata to relieve the tympanitic abdomen. The alvine evacuations improved in character, under a continuance of the mercurials with Dover's powder. His pulse gradually subsided in frequency; the skin became cool; but it was not till the 12th that the opiates could be withdrawn, or that any natural sleep was obtained. The tension of the abdomen subsided, on the motions becoming more natural, and on the 14th, was ordered inf. cinchonæ. He was soon able to take additional nourishments, and on the 24th he was discharged convalescent.

CASE 15.—B. B., aged twenty-three, a butcher. Four days since, was seized with pains in his limbs, rigors, general prostration, loss of appetite, &c. &c.; these symptoms were present on admission, Feb. 7. There were no pulmonary symptoms, nor any great abdominal fulness; some tenderness over the cœcum; bowels costive; tongue furred, red at apex and margin; much thirst; no arthritic symptoms; pulse small, 100; skin hot and dry. Hot bath. Hyd. chlorid., gr. v.; pulv. scammon. co., gr. x. statim. Haust. purgans cras mane.

The next day the headache was unrelieved; restless night; skin hot; bowels acted copiously; motions dark, black, and offensive; pulse 106; insatiable thirst; abdomen softer, and less cœcal pain; tongue furred and moist. During the next 48 hours the symptoms tended towards typhus; countenance became dull and inexpressive; eyes suffused; pulse small, 100; much restlessness of manner; the bowels not acting freely. He had opiates and a calomel purge.

The next day, the bowels having acted freely, the febrile symptoms abated; the motions of a better character; the abdomen soft and natural; no cœcal pain; skin much cooler; slept for a few hours, and awoke refreshed. He progressed favourably, the pulse becoming 84, soft, and fuller; and gradually regained his strength, without any untoward relapse, and was discharged on the 24th.

CASE 16.—J. A., aged thirty; a shoemaker. Had been in the hospital, Burdett Ward, some weeks, under treatment for an obscure cerebral affection, characterized by constant frontal headache, with disturbed vision. These symptoms had existed for some months: he had received much benefit from the treatment, when, on Feb. 25, he was seized with rigors, and general pain in all his limbs; hot skin; furred tongue; pulse 96, small and thready. Up to the period of the accession of the febrile attack, he had been taking small doses of the hyd. c. creta cum pulvere antimonialis. There was great prostration of strength; abdomen much distended and tympanitic, and obscure tenderness; the bowels were somewhat torpid, and a brisk calomel purge and salines were administered. In a day, after the tongue had become dry in centre, though moist at sides; indications of ptyalism. Severe pain was now present over some extent of the abdominal surface; being evident over the cœcum, ascending and transverse colon; skin hot and dry; motions very offensive. Ten leeches were applied to the rectum; linseed cataplasms frequently renewed to the abdominal surface. Pulv. ipecac. c. gr. x. o.n.

March 3. There had been delirium during the night; no sleep; skin moist; bowels open; pulse 120; tension and pain of abdomen diminished. Port wine and beef-tea.

4. Ptyalism became evident; less delirium; less abdominal disturbance. On the 6th, however, there was a return of the worst symptoms; abdominal tension, and pain on pressure in the regions indicated; tongue brown and dry; pulse full, 110. Leeches were again applied to the rectum, and cataplasms to the abdomen; leeches bled freely. By this he was much relieved, and rallied again; pulse fell to 96; countenance more tranquil; abdominal symptoms again abated; tongue became moist, but there was great prostration, and low temperature of the extremities. He had the infusum cinchonæ 4tis horis. Port wine, 3vj. daily. He now began to sleep better; tongue became moist; bowels acted moderately and with improved state of the excretions; opiates

were, however, necessary to procure rest at night with certainty; the bowels acted regularly, and required no assistance; his appetite improved, and, with attention to his diet, he gradually regained his strength, and was discharged convalescent on the 25th of March.

CASE 17.—G. M., aged thirty-five, a shoemaker. Admitted into Burdett Ward Feb. 20, in a state of great prostration, with all the symptoms of continued fever. Skin covered with petechiæ; abdomen tumid, and much tenderness in the epigastric and cœcal regions; hot skin; dry red tongue; anxious countenance; pulse 110, small and feeble; complains of much frontal headache; bowels open, offensive excretions. Hyd. chloridi, gr. ij.; opii, gr. j. bis die. Ammoniated salines; hirudines x. epigastrio.

The next day no relief had been obtained to the symptoms; the abdomen was still tumid and sensitive, although free action of the bowels had been obtained; pulse 110, feeble; tongue dry, and much furred. Ten leeches were applied to rectum, with cataplasms to the abdomen; the leeches drew well, and the next day the abdominal symptoms had greatly subsided. The dejections, however, continued most offensive. The hyd. c. creta and Dover's powder had been substituted for the calomel; but from the sleepless, restless nights, it was found necessary to give opiates as well. He now slept well; countenance more expressive; less thirst; tongue moist, and bowels freely moved, with improved condition of excretions; the abdomen was less tumid, and there was absence of pain; great bodily prostration existed; he had now port wine and nutrients; the skin now assumed its natural temperature, but the bowels became relaxed, with a return of tympanitis, but without pain in any region; leeches were again applied to the rectum, and again with much relief; he slept better; required less opium; countenance more natural, and tongue again moist. Another accession of symptoms of a typhoid character occurred on the 29th, tongue becoming dry, much restlessness, and some delirium, with relaxed bowels. Strict injunctions were left that this state of the bowels was not to be interfered with, unless any very alarming symptoms occurred. In the course of eight hours the diarrhoea spontaneously ceased, and the patient slept refreshingly. For the next four days he went on very favourably, but again his symptoms relapsed, and it was strongly doubted that on this occasion it resulted from some very ill-judging relation bringing in to him very improper articles of food. A similar category of symptoms presented themselves: dry tongue; hot skin; thirst; tumid and tender belly, with tendency to diarrhoea. Leeches were again applied to the rectum; cataplasms as before, with mercurials and Dover's powders, and with the same favourable result. The next day he slept well; tongue had become moist; heat of skin abated. In a few days the abdomen was soft and elastic; no pain anywhere; he had quinine, porter, port wine, and a generous diet, on which he uninterruptedly progressed to was convalescence.

CASE 18.—W. R., aged forty-four, a labourer. Admitted Feb. 20. Was taken ill twelve days since with diarrhoea, pain in the bowels, and vomiting, which lasted three days, and left him very weak. Four days since, had rigors, hot skin, and pains in his limbs, thirst, and loss of appetite. There is now epigastric tenderness; abdomen not distended; tongue much coated, red at margin and apex; skin hot and dry; bowels open. Ordered hyd. chloridi, gr. ij.; opii, gr. j. 6tis horis. Mist. ammoniac acetatis 4tis horis. Hirudines xij. epigastrio. The epigastric tenderness was relieved; the skin became lower in temperature; bowels scantily moved. A saline purge.

The next day (22nd) the epigastric pain had returned, and there was much sensitiveness in the cœcal region, with tension of the parietes of the abdomen; tongue loaded and dry; pulse 100, full; bowels acted four times. Ten leeches to the rectum, with a succession of cataplasms to the abdominal surface.

The next day a manifest remission of the symptoms had taken place; the skin was cool; abdomen soft; absence of pain; tongue moist and cleaning; bowels open. In two days from this, the symptoms continuing favourable, but with indications of a tension of the abdomen with tenderness over the cœcum, leeches were again placed upon the rectum, and with marked effect upon the condition of the abdomen: the next day it was soft and natural in its contour, and not a trace of any pain by even most deep-made pressure; the tongue continued to present a favourable appearance—moist, and but little thirst. Opiates were necessary at night; the bodily prostration and general debility were very great. He had the infusion cinchonæ with sulphuric acid. Port wine, porter, and whatever a weakened appetite might suggest, for diet. He slowly proceeded towards convalescence, but had no relapse, and, in addition to the tonic remedies required, only occasional attention to the alvine secretions. He was discharged convalescent March 23.

During the period comprised in the report of these cases, five cases occurred in a class of life usually exempt from the ravages of fever, except in years where fever rages to a considerable extent epidemically. They were all identical in type with those treated in the hospital, and they all resided in Westminster, save one, who lived in the Pimlico district.

A lady, aged fifty-one, had rigors, anorexia, thirst, and general debility; there was epigastric tenderness and abdominal distention; confined bowels at first. These symptoms were allayed by leeches, cataplasms to the abdomen, mercurials and the Dover's powder. The stomach became irritable, the bowels again torpid. Enemata and a continuation of the treatment brought on convalescence in about twelve days after first rigor.

A lady and gentleman were simultaneously attacked, residing in the same house; both mild cases, but exhibiting in a marked degree the abdominal symptoms fully recorded in the other cases. This was in the month of March.

In the first week in April, a gentleman, aged forty-one, stout, robust, of healthy constitution generally, was seized with loss of appetite and general debility for a week, then had a rigor. The bowels had acted freely from medicine prescribed by a druggist. He had vomiting, epigastric tenderness, tympany, and sensitiveness in the cœcal region; hot skin; pulse 110. Purgative doses of calomel, then mercurials, with Dover's powder; bowels acted freely, but tenderness in the regions above indicated continued, with vomiting. Ten leeches were applied *ad anum*; cataplasms to the abdomen. Next day all abdominal uneasiness subsided, and he gradually progressed to convalescence, and, with the aid of bark and acid, soon regained his strength.

The remaining case was that of a gentleman employed as a civil engineer, who after being exposed to wet, and having previously been much exhausted by long-protracted application, had the ordinary symptoms of fever, in whom the above described abdominal symptoms exhibited themselves from the first. The progress of this case was retarded by more than one relapse and a tendency to a typhoid state. He was treated upon the principles adopted in all the other cases, requiring, however, a large proportion of stimulants, and ultimately, with the assistance of sea air, perfectly recovered his former strength and energy.

These cases have been detailed at considerable length, and at the risk of being considered tedious, with the object of establishing, by their uniformity of character and identity in general symptoms, unquestionable evidence of the prevalence of an epidemic form of fever, unfrequent both as regards its occurrence and peculiarity of type. That each year, in one or other of its seasons, presents a form or type of disease more prevalent in that year, than any other form or type, and oftentimes peculiar to that one particular year, no practical man of any experience can deny: and how much is it to be lamented,



that the example, and even suggestions, of the immortal Sydenham, to bring together general views and observations of the epidemic or sporadic character of the disease, prevailing in particular years, or series of years, should have been neglected, if not forgotten. Has any generation since his day followed up the spirit of those energetic words, that conclude his chapter on epidemic disease?—"That having offered his mite for the beginning of a work, which he doubted not would be for the advantage of mankind, he left it to be completed by succeeding generations, before whom the entire series of epidemics of subsequent years would pass in review."—"Ut meum, quale quale sit, symbolum conferam ad opus inchoandum, quod (si quid ego judicando valeo), in maximum humani generis emolumentum cedat, ubi tandem a posteris, quibus integrum epidemiorum curriculum venientibus annis sibi invicem succedentium intueri dabitur, ad umbilicum perducet." Cap. ii., de Morbis Epidemicis.

The form of fever, that thus prevailed in the winter and spring months of 1846, unquestionably belonged to that class of fever termed the epidemic gastric; but a reference to the records of this epidemic gastric fever, particularly to the article in the "Cyclopædia of Practical Medicine," under that head, by Dr. Cheyne, will readily convince us, that, though we must refer this fever to the class above named (and in reference to some of the gastric symptoms there may be some similarity), yet in other respects there is no identity whatever. The abdominal typhus of Schönbein is the nearest in type of any recognised special form of fever with which I am acquainted. The general features of this form were unquestionably those of common typhus; and, perhaps, one or two cases might be selected as examples of nothing more than the usual typhus fever, as presented among the labouring poor of the metropolis; yet a careful comparison of the successive phases of these cases, the development of gastric and abdominal symptoms from the first, and the absence of all other complication, will establish a special distinction, and mark these cases as illustrative of a gastric intestinal epidemic, rather than of an ordinary sporadic fever. The marked features of this fever are these:—A premonitory stage common to all fevers; rigors, prostration, anorexia, thirst, febrile heat of skin, &c., quickly followed by epigastric and iliac tenderness; abdominal distention and tympany; a feeble, oppressed pulse; intensely hot skin; bowels variable as to condition; red, dry, glazed tongue, and more or less typhoid tendency; but, in no instance, during four months, did a case occur with either pulmonary or cerebral complication. It must be considered remarkable, and an evidence of the epidemic type of the fever, that, during its prevalence in the four first months of this year, every case of fever coming under my notice, either in the hospital or in Westminster and contiguous parts, presented the same catenation of symptoms; and that, during its continuance, fever complicated either with inflammation of the lungs, brain, or joints was extremely rare. It must be kept in mind, that the above record of cases is not a selection only of cases which possessed a particular uniformity of character; but that it comprises every case of fever admitted in my wards from January to April, 1846. Each case was daily and minutely examined with the stethoscope, to ascertain the presence, or otherwise, of that common attendant on continued fever in the London districts, pulmonary congestion, characterized by dulness at the base of one or both lungs, with crepitation and bronchophony; but in no case could any physical signs of it be detected.

The absence of all cerebral symptoms, except in that stage of the fever when febrile debility and a typhoid condition prevailed, and when a low muttering delirium is accepted as an index of want of power rather than of cerebral hyperemia, is also peculiar. Only one case exhibits any condition at all analogous to a state of phrenic hyperemia (case 13), where it was strongly suspected that stimulants had been surreptitiously

administered, at a period when such agents would inevitably bring on great cerebral excitement. Case 10 commenced with headache, which, however, subsided during the progress of the fever; and the period of the abatement of the fever was marked by the appearance of erysipelas on the face and scalp; but the antecedent period was distinctly characterized by the symptoms common to the other cases. The occurrence of vomiting of a bright apple-green fluid at a particular stage of the fever may be considered a special symptom; it was present in those who recovered as well as in those to whom the fever was fatal. It must be taken as evidence of a large amount of intestinal irritation, not however arising from accumulation or torpidity: for it happened equally in those whose alvine dejections were free and bilious, as in those who required stimulating enemata from sluggish action. That this symptom was accompanied by a certain amount of congestion in the mucous membrane of the stomach, a *post-mortem* examination in one case testifies; whether in this congestion or blush of the mucous surface we recognise one of the conditions of previously-existing inflammation, is yet a matter of doubt; as some of the most experienced writers and observers have doubted whether tenderness of the epigastrium is to be accepted as a sign of gastric inflammation, even though a rose-red blush of congestion stained the mucous membrane of the stomach on subsequent investigation. I cannot, however, but think that the evidence is greatly in favour of the disturbance of the functions of this viscus being dependent on a congested condition of the mucous membrane—a gorged and loaded state of the capillaries—which, whether we call it inflammation or not, requires a course of treatment not different from what would be required were the evidences of inflammation as palpably present as they are in an arthritic joint.

The sensitiveness to pressure in the epigastric and cæcal regions, amounting in some cases to acute pain, was accompanied by congestion of those portions of the alimentary canal. Certainly the *post-mortem* investigations distinctly exhibit these as the only parts of the intestinal tube presenting morbid appearances; and, moreover, there is no reason to suppose that in any case did the pathological condition of the stomach or intestines ever pass beyond a state of intense congestion of a greater or less surface; there is also an uniform absence of any indications of ulceration of the intestines, so commonly present in ordinary sporadic typhus; no yellow-ochry discharges; no constant diarrhoea. There was a looseness of the bowels in a few instances, but, by not injudiciously attempting to check this natural effect to relieve congestion, the action quickly subsided. In case 5, in which the symptoms during life were urgent, distinct, and characteristic, there was not a trace of ulceration, although a very extraordinary extent of intestine exhibited evidence of intense congestive inflammation, even to the exudation of blood upon the mucous surface. Again, in case 6, the redness and congestion of the colon had reached its maximum of intensity; but no trace of ulceration could be discovered. These pathological conditions place this fever in a peculiar position, in respect to other gastro-intestinal epidemics, in which a protracted disease and evidence of ulceration have for the most part been concomitant.

The remittent character of this fever was in some cases remarkable, and particularly exemplified in case 9. This case extended over a period of nearly seven weeks, and more than once exhibited symptoms of prostration and debility from which it was not expected she could rally. Petechial and miliary eruptions appeared in a few cases, and the presence of these conditions of the surface was, for the most part, expressive of a typhoid tendency.

That every epidemic fever influences more or less the character and type of the diseases that succeed to it, has been clearly established by Sydenham; and that this abdominal typhus, gastro-intestinal epidemic, or by what name soever it may be known, denoted the prevalence of a class of diseases that would embrace abdominal derangement

as their generic character, I have no reason to doubt. And, now that the summer is passed, and we have witnessed an unusual amount of diarrhoea and cholera, we can have no hesitation in believing that the peculiar constitution of this year, 1846, has been to predispose to diseases which are for the most part expressed by symptoms of gastro-intestinal disturbance.

In reference to the treatment of this fever, the history of these cases establishes, without exception, the principle that general depletory remedies could not be borne; general bloodletting could not be employed. Local abstraction of blood by leeches was alone admissible. The rapid failing of the powers—the quick transition to prostration and febrile debility—was so abrupt (and in the early stage), that stimuli and nourishment were required throughout the entire progress of the fever. Saline purgatives also only increased the abdominal distress; and, when purging was necessary, the chloride of mercury, in eight or ten grain doses, followed up by emollient and oleaginous, and, in some cases, stimulating terebinthinate enemata, obtained copious alvine discharges, with considerable relief to the intestinal distention and distress; but salines increased the abdominal uneasiness and tympany. Leeches to the epigastrium, or, when the pain was more specially located in the cæcum, applied to the right iliac region, immediately over this portion of the intestine, and followed by a succession of linseed cataplasms (frequently renewed, and covering the entire abdominal surface), invariably produced satisfactory results: made obvious by the diminished tenderness and tension, the lessened temperature of the skin, the tongue becoming moist, the pulse soft, with a tendency to sleep: unquestionable evidences of an amelioration of the symptoms. Leeches also applied, *circa anum*, in the few cases in which it was sought to relieve the congestion of the mucous surface of the large intestine by unloading the hemorrhoidal veins, succeeded most satisfactorily. In case 16, this mode of treatment is illustrated. The symptoms relapsed several times, and each period of aggravation was met by a fresh application of leeches *ad anum*; on each occasion a remission of symptoms followed, and subsequently this patient passed on to convalescence with greater rapidity than some others. The abstraction of blood by application of leeches to the rectum possesses the obvious advantage of directly unloading the vessels which are in a direct line of communication with the seat of congestion. A loaded state of the capillaries of the mucous membrane of the cæcum, and in some cases, more particularly of the large intestine, was one of the pathological conditions of this disease, as *post-mortem* examination testified; and no better channel for relieving the congestion of the colon and cæcum exists than depletion from the hemorrhoidal vessels. It is not pretended that this treatment is novel; it has been frequently employed most successfully in relieving hepatic congestion, and was much advocated by Dr. Cooke; the employment of these means in this form of fever, to relieve the congested mucous surface of the intestine, is only insisted on as affording a large amount of relief, without any tendency to increase febrile debility, or to promote the chances of a typhoid termination.

The remedies brought to co-operate with the treatment just indicated were mercurial alteratives, with diaphoretic doses of Dover's powder. It is not necessary here to dwell upon the peculiar and well-known influence of mercurials in combination with opium to allay febrile and inflammatory action: suffice it to say that the hydrargyrum cum cretâ, with the pulv. ipccac. co., in small doses, frequently repeated every six, four, or even three hours, was the combination principally relied on in the majority of these cases. In the greater number of instances a remission of the symptoms took place before any indications of ptyalism appeared; and as the mercurials were withdrawn so soon as a diminished heat of skin and a moist tongue, with a soft quiet pulse, proclaimed a modification of the fever, there was no necessity for affecting the system with mercury. It did not appear, however, that any harm resulted from pushing the mercury to mild ptyalism, if the symptoms did not yield; but the instant that the faintest



Index of salivation exists, the mercurials should be withdrawn, as severe pyalism is invariably attended by most hazardous consequences—the powers of life not being equal to the debility and irritation caused by intense mercurial action. But, while the agency of mercury was essential to improve secretion and modify febrile action, the influence of stimuli was not the less necessary; and in no class of fevers, whether in this country or elsewhere, have I ever witnessed so decided a necessity for stimulant and nutrient support. At a comparatively early stage of the disease, stimuli become necessary, even to secure the favourable action of other remedies; for, without the co-operation of them, the powers of life quickly succumbed to the febrile prostration, so that the administration of mercurials, even the local abstraction of blood, could scarcely be borne, without the support which they afforded. Although thus essential, judgment was unquestionably necessary in respect to the proper and most advantageous period at which they should be commenced. It is not asserted that, during the earliest accession of the febrile disturbance, they were requisite. As a general rule, the condition of the tongue might be taken as a tolerable guide for their necessity. So soon as the creamy, moist state appeared to be passing into a central streak of brownish fur, inclined along the central line to become dry, and before the entire surface of the tongue had assumed a red and parched condition, wine and nutritious stimuli become indispensable. Up to this period the alterative action of mercury, opium, and diaphoretics may be relied on; but so soon as the change above indicated presents itself, although the general treatment is continued, the necessity for stimulants becomes obvious. If they be not administered, the pulse begins to flag, the eyes to glaze, the intellectual perceptions are disturbed, delirium and watchfulness are added, and the worst indications of typhoid prostration are ushered in. All these symptoms may be mitigated by the judicious employment of vinous stimuli, nutrition, and opium. At this period, also, the value of bark in the form of the infusum cinchonæ was made manifest; a diminution of the febrile heat of skin, an improvement in the assimilative powers, and a capability of taking a larger amount of nutrition with palpable advantage to the constitutional powers, were the manifestations of the febrifuge effect of the cinchona bark. Experience has convinced me that the simple infusion of the pale bark in boiling water, as directed by the London Pharmacopœia, is the best preparation that can be used in fever. From its mild effect, it never disturbs the stomach, which is in most cases the effect of quinine; and, as an adjunct to wine, it is indispensable in this form of fever; it is, of all tonic febrifugal remedies, best calculated to prevent the accession of an asthenic condition, which, if not controlled speedily, terminates in death.

The convalescent stage of this fever requires no comment. A judicious and cautious diet was all that was necessary, save that the addition of a mineral acid to the infusion of bark appeared to increase its tonic effects, and hasten the development of returning vigour. There can be no doubt that, where it could be commanded, a sojourn at the seaside shortened the period of convalescence, and ensured a rapid invigoration of the debilitated functions; but such changes cannot be obtained for hospital patients, except through the instrumentality of that most excellent and efficient adjuvant to our metropolitan hospitals, the Convalescent Hospital, at Charlton; to the aid of which we were indebted for the advantages that institution afforded to two of our nurses, in the convalescent period of their recovery.

**APOTHECARIES' HALL.**—Gentlemen admitted members Nov. 5:—Messrs. John Elliot Snow, Richard Norris Bower, John Archibald Jones Martin.

**NAVAL MEDICAL PROMOTIONS.**—Nov. 7.—W. H. Cameron, Assistant-Surgeon, confirmed to the Spiteful; J. T. Ross, Acting Assistant-Surgeon, to the Geyser; Richard Douglas, Surgeon, to the Vanguard.

## REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 106.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

In entering upon the various forms of insanity, it is essential that names should be given, and it is of great importance that the same terms should, as far as possible, be uniformly adopted, inasmuch as mistakes have already occurred from a doubt as to the present nomenclature, as is instanced in the misunderstanding respecting "dementia"; and, as the present Commissioners appear to use the nomenclature established in the Report of the Commissioners of 1844, it has been thought preferable to adhere to their classification.

Without names we could not succeed in making any science or art intelligible; no classification can be made without nomenclature, and every disease, whether of the mind or body, is distinguished by its name; these names, it is true, are often arbitrary, having frequently depended on merely accidental circumstances, but the necessity of a nomenclature having been established, and, in order to prevent confusion, we shall adhere to the classification recently adopted by the commissioners:—

### I. Mania.

1. Acute Mania, or raving madness.
2. Ordinary Mania, or chronic madness, being less acute.
3. Periodical Mania, or Remittent Mania—with comparatively lucid intervals.

### II. Dementia, or decay and obliteration of the intellectual faculties.

#### III. Melancholia

#### IV. Monomania

#### V. Moral Insanity

#### VI. Congenital Idiocy.

#### VII. Congenital Imbecility.

### VIII. General Paralysis of the Insane—Epilepsy; Delirium Tremens.

In addition to these it is our duty to add Puerperal Mania, which has been excluded from the above classification, as such cases are very properly not considered suitable to be sent, or to be admitted, into a lunatic asylum.

Aberration of mind is dependent on either intellectual or moral error, and hence Dr. Prichard has divided insanity into *intellectual* and *moral*.

*Intellectual*, or madness attended with hallucination, "in which the insane person is impressed with the belief of some unreal event, as of a thing which has actually taken place, or in which he has taken up some notion repugnant to his own experience and to common sense, as if it were true and indisputable, and acts under the influence of this erroneous conviction."

*Moral*, consisting "in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, and moral dispositions, without any notable lesion of the intellect, or knowing and reasoning faculties, and particularly without any maniacal hallucination."

Heinroth has divided insanity into disorders of the *passions*, of the *intellectual faculties*, and of the *voluntary powers*, in each of which there may be either excess or deficiency of action.

A man may reason well and act most absurdly; or he may be consistent in action, but deficient in reason; so, as Pinel states, he may be most furious without his understanding being at all affected, rage and anger being the chief indication.

The intellectual faculties and the passions are generally deranged in mania, while the affections are more commonly disordered in monomania.

Intellectual insanity is subdivided into *Monomania*, or partial insanity; *Mania*, or raving madness; and *Dementia*, or incoherency.

*Mania*, or raving madness, is generally at once detected, and it is very seldom indeed made the subject of legal controversy in civil cases. It is known by the violent excitement, comparatively without fever; it may come on suddenly, but it generally commences with restlessness and agitation; the individual is uneasy for a few days, sleeping very disturbedly at night; this is then succeeded by pain and throbbing in the head, and a

want of connectedness of ideas; there is a vacant, wandering, protruding, and listening eye, with an unmeaning laugh, and unprovoked ferocity; he alternately tears, foams, cries, and laughs, feeling great antipathy to his relations and friends; projects are talked of but not accomplished; the thoughts wander, the language being more or less incoherent; and when reproved or checked, there is great rage and violence.

The restless activity, the high spirits, the preternatural vivacity, the violent mental agitation, the rambling, the extravagant ideas, the rapid walk, the peculiar gait, the irascible irritability, all tend to show too plainly the character of the disease.

In females, especially when young, the symptoms are more hysterical; they alternately weep and laugh, there being an absence of delicacy; the secretions are diminished, the appetite fails, there is often thirst, and dryness of the nose and fauces; the passions are excited, and they frequently become obscene; the symptoms gradually increasing from time to time, until at the expiration of a month the disease has passed its height, and if recovery is to take place, it may then be expected.

In chronic mania there is less raving and excitement, and not that excessive rapidity of thought and action; and, inasmuch as the paroxysms are less violent, so there is not so great a consequent depression.

Mania may be continued, remittent, or intermittent, the attacks usually recurring with great irregularity. Intermittent mania is more rare than is supposed, and perfectly lucid intervals are even denied by some, who merely consider them periods of comparative tranquillity.

When mania is complicated with epilepsy, there is often great danger; such a patient may suddenly become ferocious and violent, and may at once murder his dearest friends: such cases should never be mixed with other patients who are not epileptic.

Attacks of mania are more common between fifteen and forty-five, and are more frequent in males than females. Speculators, merchants, military men, and artists are more exposed than those of other professions and trades.

The most frequent exciting causes of mania in men are intoxication, intemperance, cold, study, in short any excess of physical or metaphysical excitement or exertion. The usual causes in women are suppression of the catamenia; disappointment, jealousy, and parturition; in men, bankruptcy, loss of character, severe mental exertion, excesses, apoplexy, and epilepsy. In either sex, predisposition equally favours the disease, which is also encouraged by a sanguineous temperament, and the inordinate indulgence of the passions.

Mania is distinguished from monomania or melancholia by the extreme violence and excitement. It is of the greatest importance to distinguish between the *delirium* of fever and acute mania; delirium generally refers to past occurrences, and the patient seems as though he was dreaming aloud; *there is intense fever*, the rambling does not remit, but continues with the fever; whereas in mania the febrile symptoms are not so high, and the wildness and incoherence often suddenly cease, and then again recur, the symptoms being paroxysmal.

The prognosis in mania is more favourable than in any other form of insanity; the chances of cure, however, being in the inverse ratio to the period of duration, being also less with each succeeding attack, and indeed, when occurring a third time, is rarely recovered from.

When incipient, it demands seclusion and absolute quiet, every source of excitement being removed, and hence even it may be often necessary to keep the room nearly dark; friends should be excluded, and one or more careful attendants should always be present. It has now been proved that restraint augments the paroxysmal rage and fury, and therefore additional attendance, with strict watching and care, must henceforth supply the place of buckles and straps.

It is a mistake to suppose lunatics can bear a great degree of cold; during a paroxysm, their violence occasions a more than natural warmth, but this subsiding, the effects of cold soon become



manifest; and, although patients may not have complained, yet their feet are often blistered with chilblains, and even mortification, consequent thereupon, has not been unfrequently observed.

*Monomania*, or partial insanity, is evidenced by an erroneous judgment upon some particular point; a false idea is assumed and persistently sustained; this may result from illusion, hallucination, or erroneous perception or conviction, involving either the intellectual or the moral faculties. The particular type which it exhibits depends upon predisposition, habits, and external circumstances; it would be impossible to give names to, or to classify, every false belief or hallucination which is found amongst the monomaniac, but those most commonly observed are designated as the melancholic, the hypochondriac, the misanthropic, and the theomaniac.

This particular form of insanity, the monomaniac, often comes on gradually, the symptoms being rather chronic than acute—there being great fickleness, timidity, restlessness, and watching at night. In melancholia especially, the vigilance is most distressing, and there is an unaccountable sense of impending danger, not unfrequently aggravated by suicidal promptings.

It is by many considered, that those who are the subjects of monomania adhere pertinaciously to their false point, and that this never varies; but it is not unusual not only for the hallucination occasionally to change, but also for the persons so affected to hold minor errors upon other subjects, so that several delusions may coexist; sometimes, however, the hallucination is undeviatingly held for life, and in melancholia a patient is occasionally seen sitting in a profound reverie, brooding over the same subject for days, months, or even years.

Where there is hallucination or partial insanity, the judgment upon other points is generally weakened; and it often happens that those persons who are the subjects of monomania have throughout life, and long antecedently to the attack, been considered by their friends and acquaintances as persons of weak mind or of peculiar fancies.

Predisposition, temperament, and great susceptibility, favour an attack of monomania; it is caused by sudden shocks, reverse of fortune, the cessation of any excitement, whether pleasing or painful—grief, fear, fright; also by the depressing passions and intemperance. It is occasioned by injuries to the head, or organic disease of important viscera, but more especially of the liver and of the lungs. Melancholia very frequently arises from excessive sensual gratification or self-abuse, while mania is often caused by rigorous abstinence. Melancholia more commonly attacks the middle-aged than the young.

Melancholic madness may be met with in every degree. An individual may at first be merely sad and desponding, subsequently becoming much depressed, and at last being actually the subject of a fixed hallucination. Mere hypochondriasis cannot be called insanity, however selfish, or however hyperbolic the estimate of a patient's bodily feelings and apprehensions; but the moment he is possessed of hallucination, he is then insane. For instance, a hypochondriac suffers great pain in his stomach and bowels, he desponds, and fears he must die; although depressed, he is not mad; but supposing he now believes that this pain is caused by a demon in his bowels, or that he has some reptile or animal there, this of itself indicates his insanity; he reasons falsely.

The hallucination may not occur spontaneously, but may be assumed at the instigation of another person; thus a clergyman swallowed a seal, and was told by a friend who was present, it would seal up his bowels. He took no food, and immediately assumed that nothing would pass through him, although purgatives acted freely. This person starved himself to death—he was mad. Here the hallucination clearly resulted from the indiscretion of his friend—probably, in such a case as this, deception might have effected a cure; at any rate it would be worthy of a trial.

Another example occurred to a bank clerk, who, apparently, accidentally encountered three friends, each of whom successively met him by design, and affected to sympathize with him, on his look-

ing so exceedingly ill. He went home, and, although before perfectly well, took to his bed and died.

Another curious death, resulting from hallucination, happened to a young farmer who one night waited out in the cold, for the purpose of detecting an old woman whom he suspected of stealing his faggots. He received her malediction, with the wish and prediction, that he would never get warm again. He believed it, and this belief led to his death.

The student of Jena affords another extraordinary exemplification of illusion. He imagined he met a white figure, which said to him, "The day after tomorrow, at nine o'clock in the morning, thou shalt die." He made his will, appointed his funeral, submitted to medical treatment, declaring it was of no use, that he was already half dead. The dreaded hour approached, his physician gave him a strong opiate; the youth fell into a profound sleep, and did not awake until eleven o'clock—this being two hours after the prognosticated time of death. His first inquiry was, "What is the hour of the morning?" On being told, he wondered, and said, he considered it all as a dream. He was thus permanently cured of his morbid imagination; but, had a less judicious physician attended him, he would probably have died at the hour which had been predicted.

In some instances it is possible to disprove the hallucination: thus a lunatic, whose delusion consisted in his belief that he was a bankrupt, had this removed by a balance-sheet being made out, which thus proved to him his error.

Monomaniacs not unfrequently believe that some extraordinary metamorphosis has occurred to various portions of their person, or even to the whole body; they will imagine they have a serpent, or devil, or bat, within them; or that their legs consist of butter, or that they themselves are tubs, or eels, or oysters, or eggs—indeed nothing is too grotesque or too absurd to prepossess their representing fancy; they will also mistake medicine for wine, or common food for the greatest luxuries. Some have refused to eat, imagining they were dead; and in one such case, where there was a fear a Prince of Bourbon would be starved, the stratagem was devised, and which succeeded, of asking him to dine with some who were also deceased. Dr. Conolly mentions the case of a young man labouring under hypochondriasis, who imagined he was dying, and went himself to correct the errors of the ringers, who by his own orders were tolling his death knell. The cold air and the exercise together cured him, so that on his return home he was able to form a just comparison of facts.

The powers of the external senses may be variously affected: there may be errors of touch, taste, smell, sight, and hearing; and in some instances such errors are corrected by the personal judgment, or by the judgment of another. Consciousness and sensation, however, often remain unimpaired, being sometimes augmented, sometimes depressed, and very frequently perverted; but the judgment, or the reasoning powers, may be also defective.

A French officer looked in vain for the column of Napoleon in the Place Vendôme, and, not seeing it, believed it to have been destroyed by insurgents; and he consequently began to attack the quiet peasants who were coming into Paris to market with their baskets. Here he was first deceived as to the column, and, not seeing it, considered it must have been removed by insurgents; he was then unable to judge between peaceable citizens and turbulent insurgents, being, in fact, incapable of forming a just comparison.

A man who was wounded at Austerlitz became insane, and the nerves of sensation were affected, so that when touched he was not sensible of it. He also said his body was not his own, but only a machine like it; he frequently refused his food, saying he had no belly. M. Esquirol also mentions a case where a girl imagined the devil had run away with her body; the sensation here was so imperfect, that when M. Esquirol pricked her arm with a pin it produced no pain. In some instances the powers of sensation are so much impaired, that a lunatic can, with impunity, face a meridian sun,

or eat and drink the most disgusting and loathsome excrement with a most approving relish.

A person suddenly becoming eccentric, and manifesting a change in all his actions, is likely to be insane. Mere eccentricity may be habitual, the individual has always been so; but it is the *great change* which justifies the suspicion.

The early separation of a monomaniac from his friends, and occupying his attention by the interesting objects always to be met with in travelling, are often of the greatest service. The removal is doubly important, if the patient bear ill will to his family or usurps unjust power; and its advantage will often be speedily manifested. Should travelling be impossible, a cheerful, dry, and temperate situation should be selected; and the less such a person mixes with those irrational, the more favourably will he be placed for convalescence. The object of removal should not be to send him to visit deluded people, but to separate him from those whom he suspects, distrusts, and dislikes. It may not suit the convenience of some to declare, or the prejudice of others to believe, that mixing lunatics with each other does them no harm, if it does not actually specially benefit them; but such an opinion is opposed to common sense. Therefore, if it be possible, a patient should be sent to the sea-side, or to any cheerful residence which may be more specially considered suitable; or he may be recommended to travel, or even in some instances to make a voyage by sea. Should any of these be impracticable, and the friends are obliged to resort to an asylum, the consequent evil may be partially diminished by selecting an institution where judgment is shown as to classification, and where no coercive measures are permitted.

If, after a few months' separation, a patient is not benefited, it is advisable to allow the friends gradually to be admitted; it requires some precaution, but may prove of the happiest effect; it will generally be better at first to introduce some friend against whom the patient has held no antipathy.

Removal from home, and the consequent change, is often highly advantageous; and it has even been noticed by M. Esquirol, that those patients who go up to Paris from the provinces are more frequently and more rapidly cured, than those who have always resided in the metropolis.

Persons of every temperament and character may attempt or commit suicide; but the melancholic and bilious are more predisposed, than the sanguine or lymphatic. Irregularity in the menstrual function very often causes cerebral disturbance, and suicide may not unfrequently be traced to this source; and pregnancy, especially when illieit, often leads the unhappy individual to hide her shame in death. Many suicides result from despondency, especially where persons who have been for many years actively engaged in business retire; it requires such a man to be of strong mind, and of great resources; he must seek occupation of some sort, or his life is miserable.

It is not unfrequently caused by arachnitis, especially when this is induced by severe mental exertion. It is observed to be very common in hot weather, and more cases occur in the autumn than in the spring. Extreme heat predisposes to suicide, and it has been noticed as very common when the thermometer exceeds 75 degs. Fahr.; and many more suicides occur during the hot days of July, than in the dreary month of November. In some instances it arises from a sudden temptation; in others the wish may lurk for some time, when it may result from organic disease.

Those who have been prevented from committing suicide often express the greatest gratitude for such deliverance; and they state the wish to have overpowered them—it was something irresistible, and the mere retrospection strikes them with horror.

Suicide is not always the result of insanity; it is sometimes committed while in a fit of passion, but this is generally in young persons, especially boys. Several instances have occurred within the last few years, where boys have been detected in petty thefts, and in fright have committed self-destruction.

Although the greater number of those who die by suicide are without doubt insane, yet we can hardly coincide with Esquirol, in believing the act



itself a proof of insanity : for persons who have been prevented from accomplishing self-destruction have subsequently confessed that distress of mind, or jealousy, or passion, induced them to make the attempt; consequently the *act* itself is no evidence of insanity. Severe pain, inevitable ruin, and the certainty of an ignominious death, have induced many persons to seek death in suicide.

Where there is a suicidal tendency, there is often a desponding look; the person appears unnatural, suspicious, dull, and retiring; the eyes are cast down and *averted*, and often have a very glassy and peculiar appearance; there is a something which is more readily detected when the suicidal wish exists, than can be accurately or easily described; the person appears uneasy, as though he was trying to conceal something; he is sly as well as shy. There is something very peculiar in the aspect of one bent on suicide: if he suspects his intentions are detected, he becomes unguarded, and will often even confess his determination, so that, that which would induce a sane man to dissimulate more, renders a suicidal lunatic even less cautious than usual.

A person of an irritable habit should never be allowed to pass at once from constant employment to habitual inertness; but the greatest care should be taken to supply some other occupation, to afford some new and interesting pursuit. Many cases of monomania and of suicide have lately occurred from the sudden cessation of the accustomed excitement of business or of authorship.

Suicides are more common from thirty-five to forty-five; cases have occurred as early as nine, and are occasionally heard of in extreme old age; but are rare after seventy. In France, more women commit suicide than men; this was the reverse in England, and is still said to be so; but certainly the proportion of females in the metropolis has, of late, been greater, who have either attempted or succeeded in effecting self-destruction; and these, for the most part, have consisted of unfortunate girls who have been recently seduced, or of still more degraded, debauched, and hardened characters.

It has been found that the married are less suicidal than the unmarried; indeed upwards of two-thirds of those cases which occur, are amongst the unmarried. It is also observed that more suicidal cases occur amongst paupers than among private patients; thus, in forty-four cases of melancholia in private patients, only eighteen were suicidal, while among seventy-six paupers, forty-six were suicidal. It is probable that the absence of moral education, the wretched accommodation, and the more unsightly appearance of the cells and iron bars, may have had some influence in increasing the propensity to suicide amongst paupers.

Where there is great despondency, the assiduous attentions of a chosen domestic are more acceptable and often more useful for a melancholic; and travelling will frequently be found beneficial where seclusion may have been thought essential.

In suicidal cases every precaution should immediately be taken, as the act is frequently only delayed until there is a convenient opportunity, but still the greatest kindness should be shown to the patient, and the least possible degree of restraint offered, watching and superintendence being substituted for it; the removal of injurious weapons and surveillance being frequently all that is necessary. A patient should be treated as a rational being, and not as a dangerous demon. When we find, as at the Glasgow Asylum, that a single text of Scripture judiciously employed has been sufficient to arrest the suicidal wish—that the words “no murderer has eternal life,” have penetrated so deeply as to restrain so pertinacious a desire—we cannot but feel that moral treatment should be more frequently attempted. A man who holds an erroneous opinion, however absurd or dangerous such opinion may be, is not a brute, he still has reasoning powers, though they may be impaired; and it is far better to gently exercise this debilitated reason, rather than to allow men to be huddled together in a paved yard, more resembling beasts than human beings. In and around the metropolis, to this day, there are most disgusting, loathsome, and degrading exhibitions in some of the yards of the various asylums.

Women rarely commit suicide with weapons or instruments, but generally drown themselves, or jump from a great height; they sometimes resort to hanging. Men usually cut their throats with a razor, or, if much used to firearms, blow out their brains; if military men, they not unfrequently shoot themselves through the heart; and it is found that the way in which life is taken much depends upon the occupation, and also upon early associations. Thus medical men and chemists often resort to poison, and take prussic or oxalic acid, or laudanum, their knowledge teaching them to avoid arsenic, which common people so often ask for, because they have used it for poisoning rats. So artisans have been known to employ the instrument which they have used in their manufactures. Anatomical knowledge has sometimes been the means of aiding the accomplishment of this dreadful intention or propensity, and instances are occasionally occurring both in and out of the profession. Specific information is sometimes sought for the special purpose of effecting the deed, and several recent instances might be quoted. One man with a penknife opens the carotid, another has divided the femoral artery, and sometimes the heart itself has been pierced. In France, where foolish lovers together commit this deed, they often meet a united death in the fumes of carbonic acid gas. Where such persons combine to commit suicide, it can scarcely be believed to originate in insanity, but must result from a highly depraved state of the moral sentiments and feelings.

Mutual suicide is sometimes sincere, and is fully carried out; in other instances, being the means a heartless villain adopts to get rid of a paramour or lover, escaping himself while the other drowns; or he rejecting the poison which the other swallows. It often happens that a man murders his children, and then commits suicide, or a mother despatches her infants, and then drowns herself; the presumption in such cases is, that they are insane.

In the delirium of fever, suicide is often attempted, and, unfortunately, has been frequently successful. Whenever there is excitement and wandering in fever, there should be the strictest surveillance: all weapons should be removed, and the patient should not be left alone for one moment; the same precaution is also necessary in cases of puerperal mania.

Persons who commit suicide have often insane relations, and there can be no doubt that suicide is in some instances hereditary. It has been noticed to descend through three generations—the grandfather, father, and some of the sons, actually dying by their own hands, while various other members of the family indicated different forms of insanity.

Dr. Rush mentions a singular example of two twin brothers, who were officers. They were on service in different parts of the country, and yet each committed suicide, without communication with the other, at about the same period. Their sisters had a similar propensity for years, and the mother was decidedly insane. At the moment of writing this last paragraph, a man called on me, whom I have always thought very eccentric; this morning, he informs me, one cousin has committed suicide, another died raving mad, another is about to be confined, and some of the rest of the family are amazingly litigious—a peculiarity I have not unfrequently noticed in insane persons. This man, whenever speaking of his family or their concerns, becomes morbidly excited.

Suicide may be the result of delirium, and be immediately acted upon; but in cases of melancholia is generally long thought of. It may be occasioned by violent rage, remorse, disappointment, mortified pride, erroneous views on religious points, and even as a religious rite or ceremony. It is often caused by excessive and protracted sensual indulgence, gambling, speculating, reverse of fortune, the passion for notoriety—any of these, in the absence of self-control and moral restraint, are sufficient to account for this destructive propensity. It is encouraged by whatever favours vice or is opposed to virtue; and hence materialism, infidelity, and socialism tend very much to its increase.

We must not, however, omit amongst the causes,

political and commercial crises, irritation from domestic troubles, want, pain, seduction, disappointed love, the desire to escape criminal exposure, the suicidal predisposition, the irresistible impulse, the reading exciting details, imitation.

To show how much political excitement and the troubles consequent thereupon have a tendency to overturn the best interests of society, it is only necessary to state, that in the neighbourhood of Versailles, during the reign of terror in 1793, upwards of thirteen hundred suicides were committed within a few months; and the number of suicides which, at the commencement of the present year, resulted from the railway mania, have but too frequently and too plainly proved the baneful effects of an unwholesome and illegitimate spirit and system of speculation.

If a suicide or a dreadful murder occur, within a day or two there are likely to be several repetitions. In the Hôpital des Invalides, at Paris, a pensioner was found hanging in one of the corridors; two days after, a second hanged himself on the same spot; and subsequently a third and even a fourth; this corridor was then closed, and the suicidal predilection ceased. The same influence of *imitation* has been seen at the Column in the Place Vendôme, and also at the Monument in London: one person precipitates herself, and very shortly after another fatal leap occurs; this, indeed, is now so well known that active precautions are adopted. It is unnecessary to further illustrate this subject by adducing the numerous attempts made, and happily also often frustrated, from the various bridges in this Metropolis and in Paris.

Many persons are unable to look down from any great height without feeling an inclination to throw themselves down; this does not arise from giddiness, but seems to depend upon some peculiar fascination; and I have known persons, when so exposed, say, “I must go back, or else I shall throw myself down.” They possess the necessary degree of control to prevent them from exposing themselves to the temptation, but probably an insufficiency to restrain them from acting upon the deadly impulse when actually exposed. It will be well to bear this in mind when referring to criminal acts depending on moral insanity.

There can be no doubt but that the minute details of murders, and of suicides, tend very much to cause their fearful increase; and the evil is by no means diminished by the dramatic exhibitions of the present day. Where, when a murder has been attended with any circumstance more horrible than usual, advantage is taken of it, and the scene is even *re-enacted* at our theatres! where murder is looked upon as a quiet way of getting rid of an enemy; where suicide is regarded as an easy manner of shaking off this world's cares; where one hears of the pleasures and gratifications of intrigue, of the miseries and troubles of domestic life; where a highwayman is a hero, and a dexterous thief is upheld as the pattern of imitation—a gallant and gay Jack Shephard; where the smuggler, who has killed his dozen, is, when at length taken, treated as a most noble and injured individual, demanding the greatest sympathy; where, in short, virtue is despised, and vice, if not actually applauded, is seductively presented—is this the place where infancy, or youth, or age, should be? Is it here we are to learn what to avoid or shun, what to admire and imitate? Is it here the moral qualities will be improved, and the animal passions subdued? It is said that the vivid pictures of life, and the faithful delineations and *exposé* of character, render a theatre highly useful for the public, and especially for the young. What false philosophy! what error!

Even with the more respectable portions of the press, greater attention is devoted to the failings and crimes of men, than to their good doings and virtues; and the very publicity given to the horrid deeds of egotistical and conceited malefactors has been sufficient to induce other vain and weak-headed villains to render themselves in turn the object of public gaze and attention.

(To be continued.)



# DESCRIPTION OF AN IMPROVED APPARATUS FOR THE TREATMENT OF POPLITEAL ANEURISMS BY COMPRESSION.

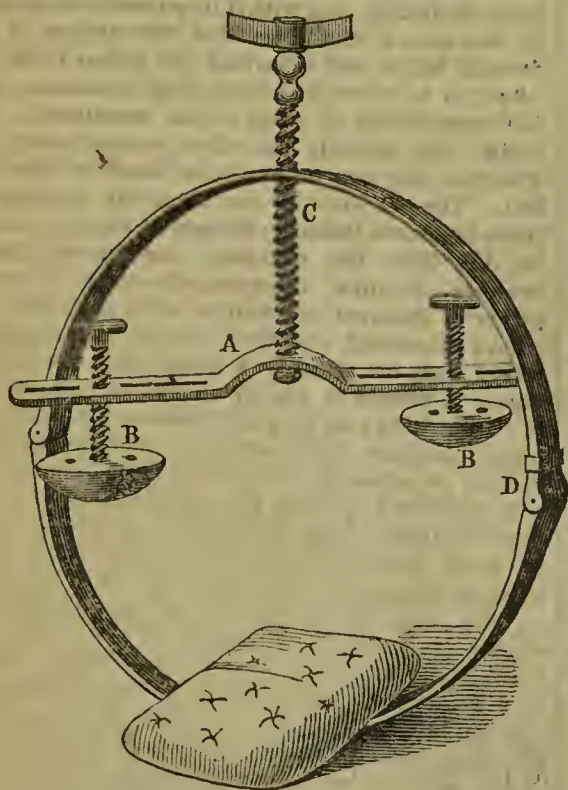
By F. A. BULLEY, Esq., F.R.C.S.,  
Surgeon to the Royal Berkshire Hospital, Reading.

As the treatment of aneurisms, especially of the popliteal kind, has lately occupied much of the attention of the profession, and as many eminent surgical authorities, both in this country and on the Continent, have spoken in favour of its employment as a rational method of treating these diseases, I shall be excused for suggesting an apparatus for more effectually carrying out such treatment.

Finding that this method of cure was attended with considerable trouble and uncertainty from the difficulty of application of the instruments usually employed for this purpose, and, moreover, having had an opportunity of estimating this difficulty by personal observation of a case lately in the hospital, I was induced to direct my attention to the subject, and succeeded in contriving the instrument of which I have given a sketch.

After the clear exposition of the laws which should regulate the compression of arteries in aneurism, afforded by several able writers upon the subject in the different journals, it will be unnecessary for me to enter into any minute description of its *modus operandi*; I will only state what seems to be the opinion of many, that, in most instances, a steady retardation of the arterial stream, by graduated compression, is indispensable to secure the requisite deposition of laminated fibrine in the sac, and the consequent cure of the disease, and that the too sudden obliteration of the vessel is in no cases either desirable or expedient.

The instrument, which the engraving accurately represents, is capable of producing a variable but well-regulated pressure upon different points of the artery by a particular arrangement of the pads, which are made to slide upon a revolving bar, and may be moved at pleasure whenever it is found to produce uneasiness to the patient; it is equally adapted to both thighs, and may be removed from or applied to the limb with the greatest ease.



**Description.**—A flat bar of steel revolving on the extremity of the central screw provided with a slit at either end, in which the screw-nuts connected with the pads B are made to slide, and thus enabled to be brought near to or separated from each other in their application to different parts of the artery.

BB. The bolsters or pads connected with the screws working in the traversing nuts.

C. The central screw working in the upper part of the circular band intended to increase or diminish the general pressure by its action on the revolving bar.

D. The circular band having a short padded iron splints at the lower parts of its circumference, and a spring joint fixed by a slide at D, to allow of its being opened and closed when applied to the limb.

It must be observed that the short screws are intended more for the purpose of adapting the pads to the varying depth of the artery and the circumference of the limb in the different parts of its length, than for producing any actual amount of pressure upon the vessel, although of course they can be made to produce it in a certain degree by tightening either of them and loosening the other, the main regulating power residing in the central screw.

I do not know whether my description of this apparatus is sufficiently clear to convey an idea of its mechanism, simple as it is. I would only remark that it may be seen at Messrs. Weiss's, the eminent surgical instrument makers in the Strand, who constructed it under my directions, and who will be happy to explain its uses and mode of application to any gentleman who may wish to inspect it.

## OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,  
Late House-Surgeon to St. Bartholomew's Hospital, Surgeon  
to the Central London Ophthalmic Institution, &c.

### PROTRUSION OF THE EYEBALL OF MORE THAN THIRTY YEARS' STANDING. SUPPURATION WITHIN THE ORBIT, WITH CARIES OF THE MALAR BONE, CEREBRAL SYMPTOMS, AND DEATH OF THE INDIVIDUAL.

James Burkett, aged forty-two, a carter, tall, robust, and healthy-looking, came under my care at the Central London Ophthalmic Institution in May, 1844.

**Symptoms.**—The left eyeball is more prominent than its fellow by about a quarter of an inch, and moves freely in all directions. The integuments of the external canthus, and of the angle of the cheek, are swollen and indurated; neither redness nor pain exists. The eyelids are in a natural condition; the pupil acts freely—the conjunctiva, particularly the palpebral portion, is slightly injected. The vision is impaired: to use the patient's expression, he "sees through a mist." He can read ordinary-sized print when the other eye is closed. The axes of the eyeballs are parallel.

**History.**—Temperate; has always had good health from childhood; had syphilis many years ago, in a primary form only; is accustomed to hard work; appetite good. About this time three years he noticed that the eyeball was prominent, and, at the same time, discovered the existence of imperfect vision. He went to Moorfields Hospital, and was under the late Mr. Scott, who directed leeches to be applied to the temple from time to time, together with other treatment. After attending there for a few weeks, he undertook to treat himself, continuing with the leeches alone, of which he used an incredibly large number—800 within three years. There has been an aggravation of his symptoms since he applied to Mr. Scott.

I made an accurate examination, but could not detect any collection of fluid, nor could I arrive at a conclusion of the nature of the affection. I submitted the case to some professional friends, without, however, any advantage.

**Ordered.** Hydr. c. cretâ gr. ij. to be taken twice a day, till the mouth is slightly affected. Ung. iodinii comp. to be applied to the swelling.

In fourteen days the mouth was a little sore.

**Ordered.** Hydr. c. cretâ gr. ij. on alternate days. The ointment to be continued.

I now lost sight of my patient until the middle of January, 1845. He had not continued with my prescriptions, nor had he done anything in the interval. The parts which were before slightly swollen, were now considerably so, besides being inflamed and painful. Paroxysms of pain had

induced him to return to me. The eyeball was more prominent, and its movements were restricted; vision decidedly worse; he was emaciated and very weak. I could not be satisfied that there was suppuration. I made an exploring opening in what seemed the most favourable part, over the malar bone, without any satisfactory result; I then deepened the cut to the surface of that bone, and was gratified in obtaining about a dessert-spoonful of ill-formed pus. The probe revealed a carious bone. Much temporary relief ensued from this procedure. Only a small quantity of pus passed from day to day. In a fortnight he was so debilitated as not to be able to attend the institution on foot. Taking an unfavourable view of the case, I requested my friend Mr. Ferguson to admit him into King's College Hospital, where, after much nervous excitement, delirium, and fits of an epileptic character, he fell into a comatose state, and died on the 27th of February. Mr. Ferguson kindly informed me of his dissolution, and when the *post-mortem* would be held. I did not date his admission into the hospital, but I think he was not there longer than ten days.

#### POST-MORTEM.

**Cranium.**—All the parts within were healthy; a minute inspection of them failed to discover any abnormal condition. The interior of the orbital bones showed no signs of inflammation.

**Orbit.**—Except the eyeball, which was not at all altered, the contents were very much thickened and infiltrated, but not destroyed. There was an abscess cavity on its lower and outer part, passing to the external surface of the malar bone, which was carious both on its orbital and facial aspects. A little pus had burrowed through the sphenomaxillary fissure into the zygomatic fossa. The caries was very superficial, and seemed limited to the malar bone. The surrounding osseous structures exhibited the changes usual in the neighbourhood of carious bone.

**Chest.**—Not examined.

**Abdomen.**—Organs healthy.

#### REMARKS.

Protrusion of the eyeballs is produced by a variety of causes, some of which are very obscure, and cannot be ascertained by a mere external examination, but require actual dissection for their demonstration. Although this subject is an important one, I shall not enter into it, because to do so would, I think, be to exceed the proper limits of this communication.

The partial displacement of the eyeball, the slight imperfection of vision, and a limited amount of swelling of the integuments over the malar bone, were the only symptoms, in the first instance, from which a diagnosis was to be made. The unaffected state of the lids was an unusual occurrence, for with inflammation about the orbit, even of a chronic character, they generally become inflamed and infiltrated. The total absence of all pain till a very late date is remarkable, and contrary to what might be expected. The eyeball maintaining its parallelism, and being pushed directly forwards, was likely to mislead and to engender the supposition that the cause of its protrusion was at the bottom of the orbit. It is not uncommon, with bony and other growths, and, as in this instance, an abscess at the side of the orbit, for the eyeball to be pushed forwards without any lateral displacement; this must be attributed to the mechanical properties of the fat in the orbit.

The cause of the disease is unknown. He had not received any blows, nor was there any appearance of a scrofulous habit. The question of a syphilitic origin cannot, I think, be entertained, seeing that the malady had been contracted and cured fourteen years ago, and secondaries had not ensued. There cannot be a doubt that the abscess, which I consider to be the cause of the caries, commenced in the orbit; and it is most probable that it originated a very long time before the patient applied to Moorfields. It is almost needless to say that my prescription was quite speculative.

The protracted duration, the age and the health of the patient, were evidences against the probability of the existing disease.

Whether 800 leeches were applied it is impossible



to say: the apparent honesty with which the poor fellow told his story inclines me to believe it as true. He certainly had leech bites in great abundance on the temple and on the forehead.

Before his admission into the hospital he suffered from the most intense headaches. Any stimulus that he took was sure to bring on an attack. Porter was his accustomed drink. I expected to see some products of inflammation within the cranium, but their absence did not surprise me.

Caries of a bone of the orbit terminating in death must be considered as a rare occurrence. I have often met with ulcerated bone around the orbit, and just within its cavity, in scrofulous individuals, mostly children; such cases may be said to be common, and their result is favourable, so far as life is concerned.

Acute inflammation of the orbital tissue, attended with abscess, usually passes through its stages quickly; the pus, making its way to the surface, is evacuated naturally, or by artificial means.

13, Bernard-street, Russell-square, Nov. 6.

### THE PHILOSOPHY OF PHYSIOLOGY, IN REFERENCE TO THE PHENOMENA OF MOTION IN ORGANIC LIFE.

By H. BRADY, Esq.

Modern physiologists, in their researches into the structure and functions of the animal organism, have evinced a supreme horror of encroaching on the boundaries of metaphysics; nor, with few exceptions, have they ever permitted themselves to indulge in abstract reflections on the phenomena which characterize the manifestations of organic life. For them, every motion in the organism must have a visible cause; and, if the cause is beyond their reach, their inability to grapple with it is only ascribed to the unfinished tutorship of their organs, or the imperfection of their instruments of research.

Nevertheless, physiology has opened a field for the exercise of our unbounded admiration; and although the attempts to prove that the phenomena of life are wholly dependent on the operation of material causes must ever be considered as crude in their origin, and hopeless as to their accomplishment,—as the search after the philosopher's stone;—yet, as in the operations of the alchemist, facts of infinite importance have been developed, increasing in a remarkable degree the store of human knowledge, so our researches into the operations of living matter have spread before us a panorama of excessive beauty, in the contemplation of which we are struck with awe and admiration; the mind is filled with the loftiest conceptions, and we are led, in reviewing the sublimest of the Creator's works, to form the truest idea of His attributes, and to wonder at the omnipotence, wisdom, and undeviating constancy of His laws.

With an insatiable thirst for knowledge, we dive into the recesses of Nature, explore her most secret cells, and grow familiar with every fibril that forms the ultimate groundwork of her structures, or conveys to remoter parts her electric ordinances. We witness all her wondrous operations, from her state of quiescence in the germ, to the development of the perfect animal;—the manifestation of its intelligence, its growth, reproduction, and decay. We behold her surround the minute and apparently amorphous granule of the germinal disk with a "wall" of inconceivable delicacy, to form the primal cell; another and another is formed, and, continuing to draw her material from the plastic lymph with which she is surrounded, we see her proceed to the construction of the various tissues which enter into the composition of the exquisite apparatus of the animal machine.

In all these actions we plainly perceive the operation of an agent manifesting itself according to a rational law, every motion being evidently the offspring of design, and the design the construction of a whole, composed of a number of distinct parts, or organs, to each of which a separate function is allotted; the integrity of the whole depending on the due performance of those func-

tions, and the reciprocal action of the particular organs.

But the action of this "force" does not cease with the perfection and birth of the animal. It still maintains its empire in the economy, becoming its conservatrix through life, maintaining its proper structure, and counteracting the external influences which tend to effect its disorganization and decay. Upon the knowledge of the presence of this conservative agent (the *vis medicatrix nature* of Cullen)—or rather upon its assumed existence, for its separate entity is mere hypothesis—and our proper application of that knowledge, our success in the treatment of disease will in most instances depend; our views being principally directed to the assistance of her efforts to counteract the chemical forces which are called into operation wherever a lesion of structure or alteration of function has occurred.

The nature of this force, as manifested in the actions of nutrition and locomotion, has latterly been a fertile theme for the speculations of the chemical physiologists; but, notwithstanding the pre-eminent talent which has been expended on the subject, their arguments have led to anything but satisfactory conclusions. Liebig assumes that the phenomena of nutrition and motion are the result of chemical changes; that of nutrition being dependent on a decomposition and recombination of the elements of the food under the influence of the "vital force," which he affirms to be the cause of growth in the mass, of resistance, of composition and decomposition; and the existence of which in unequal intensity comprehends not only an unequal capacity for growth in the mass, but an unequal power of overcoming chemical resistance; thus endowing this force with a separate entity and independent existence; and he confirms the assumption when he says: "it is obvious that a certain amount of vital force must be expended to retain the elements of the complex azotized principles in the form, order, and structure which belong to them." But, with a strangely perturbed logic, he soon again affirms that the vital force is dependent on the form and composition of the tissues in which it resides. Thus he assumes that, "as the manifestations of chemical forces (the momentum of force in a chemical compound) seem to depend on a certain order in which the elementary particles are united together, so experience shows us that the vital phenomena are inseparable from matter—that the manifest actions of a living part are determined by a certain form of that part, and by a certain arrangement of its elementary particles—and if we destroy the form or alter the composition of the organ, all manifestations of its vitality disappear." If the manifestation of force be dependent on the form and composition of the tissue in which it resides, the force itself must have a similar dependence; because, to speak of the manifestations of a force as distinct from the force itself is palpably absurd. How, then, are we to reconcile his assumption of its separate entity, its independent existence, with his later assertion, that the manifest actions of a living part are determined by a certain form of that part and a certain arrangement of its elementary particles? Can we conceive anything more contradictory and illogical than this reasoning? The inextricable maze of contradictions in which his arguments are involved, are sufficient evidence of the difficulty, or rather, the impossibility, of accounting for the actions of life, on the principles which govern the phenomena of inert matter.

His theory of muscular motion, which he also designates by the term "force," is equally contradictory, evidently cramped by his ultra-chemical prejudices, and evinces an apparent desire to establish his chemical principles as the presiding deities which govern the motions of the whole organic world. He proceeds to institute an analogy between the animal motions and the force which is manifested as the result of change of form in matter (chemical action) in the galvanic pile. After describing the phenomena of galvanism, and the mechanical effects it may be made

to produce—all these phenomena being the result of the chemical action between the acid and the zinc—he observes: "the acid loses its chemical character; the zinc enters into combination with it; the manifestations of force produced in the wire are the immediate consequences of the change of properties in the acid and the metal. One particle of the acid after another loses its peculiar chemical character, and we perceive, in the same proportion that the wire acquires a chemical, mechanical, or magnetic force, whatever name be given to it, according to the number of acid particles which may in a given time undergo this change—that is, according to the surface of the zinc—the wire receives a greater or less amount of these forces." Now, these forces, developed by change of matter, he assumes to be analogous to the vital force which is the cause of motion in animals; but, again, we find that he himself destroys all analogy between them, affirming that change of matter in the animal organism is the immediate effect of the manifestations of mechanical force! Thus he observes, that: "as the immediate effect of the manifestation of mechanical force, we see that a part of the muscular substance loses its vital properties—its character of life; that this portion separates from the living part, and loses its capacity of growth and its power of resistance. We find that this change of properties is accompanied by the entrance of a foreign body (oxygen) into the composition of the muscular fibre, just as the acid lost its chemical character in combining with the zinc; and all experience proves that the conversion of living muscular fibre, into compounds destitute of vitality, is accelerated or retarded according to the amount of force employed to produce motion." What analogy can be traced between the nature of two forces, one of which has its origin in the transformation of matter, and the other of which, reversing the order of cause and effect, is the immediate cause of these transformations?

That change of matter is consequent on animal motion, and not the cause of the phenomenon, there can be little doubt. It may be regarded as an established fact, that muscular motion is the cause of waste, which waste is resupplied during the intervals of rest. The contraction of a muscle induces a change in its composition; a portion loses its vitality, and with it its power of resistance. In this state it combines with the oxygen of the arterial blood, and is carried off, either to be excreted or to enter as a secondary formation into the composition of some of the secretions. We know that animals die after violent exertion. That the stag may be hunted to death is a familiar fact. The violence of the muscular motions in these instances induces changes of structure more rapidly than the organism can renew them; muscles become disorganized—their *inherent* power of contraction, their allotted function, becomes exhausted, and their vitality is destroyed. There can be scarcely a doubt that the loss of power in muscle is mainly dependent on failure in its nutrition; so long as it retains its integrity, under ordinary circumstances, its function will remain unimpaired. The heart, it is well known, will continue to pulsate for some time after it has been separated from the body; that of a serpent for many hours! On what does motion depend in these instances? Can we doubt that it depends on the integrity of the organ not being yet wholly destroyed, and therefore performing its function so long as it retains its vitality. This may be even much longer retained under favourable circumstances: even after it has ceased to act, immersion in warm water, or the application of any stimulus, will cause it to renew its contractions and dilatations—the cause of its ultimate cessation being obviously dependent on changes produced in the composition of its fibres, and the absence of its renovating nutritious fluid.

Reptiles can remain without food for a long period: the scorpion, for instance, for months! And in these the actions of change and renovation are but slowly performed. This will account for the length of time their muscular actions will



continue after their separation from their nervous and vascular connections: the muscle retaining its integrity of structure for a period lengthened in proportion to the slowness of its natural waste and supply.

Reflecting on these facts, I think we have reason to conclude that motion in animals principally depends on the integrity of their special organs, and that this integrity is maintained by the processes subservient to their nutrition: muscles contracting in obedience to the same law by which membranes and glands secrete, each being endowed by creative power with its own special ordination.

Thus the assumed existence of an analogy between the cause of electric or galvanic phenomena, and that of motion in animals, is evidently unfounded. In the former we have seen that a fluid is generated or set free by the transformation occurring between the acid and the zinc; and that this fluid is transferred along conducting wires to the part in which its action as a force is manifested. This force must be dependent on the conduction of a material agent; for, as Mulder justly observes, that which is not material cannot be *communicated*; and we trace the origin of this force or fluid to the change of matter occurring during chemical action. If we remove the wires, the force is no longer manifested, the phenomena immediately cease. But we know that muscular action precedes the change of matter, and is in a great measure independent of its connection with the nerves, which Liebig assumes to be the conductors of force in animals.

The organic motions are necessarily dependent on a fixed composition and form; but this form and composition have been predetermined by the organic force, which is in itself independent of form. Its manifestations commence in the germinal disk of the ovum—a formless, structureless mass; and here its power is as obvious as in the most perfect arrangement of the living tissues. It differs from all known forces, in manifesting itself according to a preordained, rational design. The force which places an apparatus of valves at the root of the aorta and pulmonary artery, is the same vital agent which maintains in its integrity the entire of the complicated apparatus of the animal organism—bestowing on every organ its structure, form, and function: on muscles their contractility; on membranes their secreting property; and on the brain its mysterious offices of sensation, thought, and volition.

That the structure of the animal organism is maintained by processes purely chemical, even under the influence of the vital force, there is, I conceive, much reason to doubt. That the development of the chick in the ovum, for instance, is the result of a chemical transformation of the elements of the albumen and the yolk, appears to be an unfounded assumption. In this process we observe the abstraction of the minutest constituents of the fluids, with which the germinal disk is surrounded, and their application with wondrous accuracy to the particular organs into the composition of which they are destined to enter. Phosphorus, lime, sulphur, iron, &c., all have their special locations, and in which they are deposited in certain proportions with unerring precision; but we have no reason to suppose that these combinations have their analogies in the processes of the laboratory. True, the tissues may vary in their elementary constituents, and the arrangement of their ultimate particles, as well as in the characters and proportions of their earthy salts; but this arrangement and combination are directly opposed to the exercise of their chemical affinities, and yet each separate part maintains an ultimate composition, and a form always identical, and such as the nicest processes of the laboratory have ever failed to imitate. We only know that certain elements of the inorganic kingdom of nature are necessary to the construction of the living organism, and that these are presented to it (in animals) in a state of organic combination. But it must be remembered, that it is only when the parts of an organism have lost

their vitality, that their elements assume their peculiar chemical characters, and the play of their natural affinities becomes manifest in the formation of inorganic compounds. The only chemical actions, which appear to occur in the processes of life, are those effected between the oxygen of the arterial blood and the constituents of tissues which have lost their vitality; but the deposition of new matter is essentially a vital process. No part of an organism has ever been formed synthetically; nor, indeed, is it certain that we have ascertained the state of combination in which the elements of even the least vital parts of the body exist. It is by no means certain that the earth of bones exists in their organized structure as phosphate of lime; and we have no more reason to assume that it does so, than that prussic acid exists in essential oil of almonds, because it yields it by distillation; and, again, the condition in which phosphorus is combined in brain has ever been, and no doubt will long continue, an unsolved enigma.

In the vegetable as in the animal kingdom, the phenomena of motion have been the subject of frequent research; but the inquiries of physiologists have been instituted with an apparent predetermination to connect these phenomena with the operation of extraneous forces, excluding from consideration the fundamental laws which are necessarily connected with the manifestations of life. Thus the term—organic affinity—has been invented to characterize the force which determines the inclination of leaves and flowers towards the light, and the extension of the root in the direction of the most nutritious soil; and the term—irritability—has been here, as in the animal organism, applied to designate the cause of the motions, which are observed to occur in certain plants on the application of external impressions. But what is organic affinity? What is irritability? We endeavour to form ideas of forces which have no existence, and give utterance to our assumptions in a hypothetical and inexpressive phraseology. There is no observable difference in the actions which are said to be the result of organic affinity, in the animal and vegetable kingdoms: in both we observe the manifestations of the phenomena of life—special properties with which the Creator has endowed the living organism; and, when we observe the root of a plant to extend with a seeming consciousness towards the part which contains its most appropriate nutriment,—or the leaves of a plant, when enclosed in a room partially darkened, to turn with seeming avidity towards the aperture at which the light enters—an avidity to which the organic force of the entire plant is made subservient, as exhibited in its rapid growth in that particular direction—we only recognise the fact, that, in endowing the organism with life, the Creator has bestowed on it the power of making that life available to its preservation; and this power is incorrectly expressed by the term—organic affinity—which conveys the idea of a *mutual* attraction existing between the organism and its natural vital stimuli; but the attraction is not mutual, for a ray of light will not bend out of its course to reach the leaves of a plant or the petals of a flower, and its nutritious fluids evince no attraction for its root. The term—irritability—is intended to express the power which exists in particular organs, either in an animal or a plant, of performing certain motions on the application of stimuli; but it originates no idea of what the force is, or whence derived. That, in the plant, it is independent of mechanical impulse, transmitted through the particles of its fluids from the part impressed, the experiments of Dutrochet satisfactorily prove. He found that the irritability of the sensitive plant was seated in a swelling (an organ?) situated at the articulation of the leaf-stalk, on the removal of which the motor power was lost. To me it does not appear at all preposterous to suppose, that this swelling may be a contractile muscle connected with the leaves by nerves: for although nerves, such as are found in the animal kingdom, have not been demonstrated

in vegetables, for aught we know the longitudinal fibres of the vessels themselves may, if they are not nerves, have analogous properties in the power of receiving and communicating to the motor organs the impressions of natural and artificial stimuli. At all events, the hypothesis is at least as feasible as many of those with which the theories of organic motion are encumbered. The extraordinarily incessant rising and falling of the lateral leaflets of the *hedysarum gyrans*, independent of external stimuli, and the bending of the stamens towards the pistil at the period of impregnation, are phenomena which are doubtless independent of the operation of any chemical force, and solely connected with the special vital properties of the vegetable organism.

The metaphysical speculations of the ancients can scarcely be considered as more irrational, or further removed from the empire of true philosophy, than the endeavours of modern seers to elucidate by physical dogmas the cause of the phenomena of life. Life and its phenomena are inseparable! And if our speculations upon the nature of the former can only be regarded as futile attempts to cross the *ultima thule* of human reason, the endeavour to connect its phenomena with separate causes is palpably absurd. If all the parts of a living organism owe their form and composition to the operations of the formative principle existing in the formless germ, it must be a strange process of reasoning from which the conclusion is deduced, that the functions of particular organs are dependent on a power distinct from that which formed them. We can no more explain the phenomenon of muscular contraction, than the action of the brain in prompting us to its elucidation: we know that the office of the one is to contract, of the other to form conceptions; but this is the limit of our intelligence.

The investigations of science infallibly demonstrate that certain unchangeable general laws govern the entire system of creation as a whole. Some of these laws (gravitation, affinity, &c.) are observed to be dependent on properties inherent in matter: connected with its very essence, and coeval with its existence; and the immediate tendency of the uncontrolled operation of these laws is to the assumption of the condition of static equilibrium—that is to say, to the annihilation of motion. When an acid is neutralized by a base, the result is a cessation of motion between their particles; and when a falling body reaches the earth, its motion is destroyed by the resistance it there meets with. Had the planetary systems, after their formation, been left to the unopposed operation of their inherent forces, all the planets would have been attracted into the mass of their central suns, and their motions, as well as their separate existence, annihilated. But, as their separate existence was determined by Creative Wisdom, it became necessary to institute a force which would control their inherent tendencies, and compel them to pursue their ceaseless orbits round their common centres. This latter force, the centrifugal or projectile, was perfectly arbitrary as to its origin, having no analogy whatever with the peculiar properties of matter; for, as those properties inevitably tend to the annihilation of motion, this force, on the contrary, tends to its perpetuation, and must be traced for its origin to the arbitrary will of the omnipotent Creator—to the impulse of his Almighty hand!

If, then, the perpetuation of motion in the planetary systems has been determined by an arbitrary law, irrespective and antagonistic to the laws which regulate the condition of matter, it must appear incompatible with the ordinances of Creative Wisdom, to assume that the phenomena of motion in organic life have any necessary dependence on these laws. It is far more consonant with the exercise of true philosophy, to view the phenomena of life as dependent on the arbitrary will of the Great First Cause; and to this mode of reasoning we are the more forcibly led on reviewing the inefficient and contradictory theories on which the opposite conclusions are based.



To pursue our investigations into the structure and functions of the animal organism, with the preconceived idea that the actions of life—nutrition, secretion, and motion—are connected with causes which may become appreciable by the senses, is natural, and in accordance with the insatiable appetite evinced by the human mind for the attainment of knowledge. But when, in the pursuit, we have arrived step by step to the highest point, and yet fail to connect these phenomena with appreciable causes, let us not hesitate to seek for their true source in the arbitrary will of the Great First Cause! He endowed us with intelligence sufficient to enable us to recognise His omnipotence in the contemplation of His wondrous works; but upon the fundamental laws of life He has set his seal. Our researches into those laws only lead to the development of the sublime truth, that "in Him we live, move, and have our being"; that He has caused all things with which we are surrounded to pay tribute to our comfort and necessities; and that we hear upon us, indelibly impressed, even above all other of His works, the majestic stamp of His divinity!

#### ON MOIST HEAT, AS A THERAPEUTIC AGENT; AND ON THE ADVANTAGES OF A CERTAIN NEWLY-INVENTED MATERIAL FOR APPLYING IT.

By ALFRED MARKWICK,  
Surgeon to the Western German Dispensary, and formerly  
Externe to the Venereal Hospital, Paris, &c.

The object of this paper is to bring under the notice of the profession a material which has lately been invented as a substitute for poultices and fomentation cloths.

Before, however, alluding to it, we will first of all make a few remarks on the beneficial effects and *modus operandi* of heat and moisture, and on the inefficacy of the ordinary cataplasms for applying these agents.

##### 1. ON THE BENEFICIAL EFFECTS AND MODUS OPERANDI OF HEAT AND MOISTURE.

(a) *In External Inflammation.*—In these cases, their value cannot be too highly extolled; and, in order to show more distinctly the mode in which they act, I may allude to the relaxing and even debilitating effects of a warm and damp atmosphere on the constitution, as proved by the inhabitants of those districts, where this kind of climate is peculiar, being generally of a weakly, lymphatic temperament; and also to the well-known property of caloric, in causing the dilatation or expansion of bodies.

Heat and moisture, or, in other words, moist heat, has then a decidedly relaxing effect: it relieves pain, both by its direct soothing action on the cutaneous nerves themselves, and by removing the pressure produced on them by the tension of the inflamed parts; it also relieves the distended vessels by promoting effusions from them, and by increasing the cutaneous exhalation; and by causing the dilatation of the coats of the vessels, it has the effect of detaching from the sides of the canals the numerous lymph globules which appear, from the researches of Addison,<sup>(a)</sup> Williams,<sup>(b)</sup> and others, to be an essential formation in inflammation, and one of the causes of obstruction; and thus it enables the *vis à tergo* to propel onwards the blood that has become congested and coagulated, and thus indirectly restores to the flaccid capillaries that tonicity, the loss of which (the second cause of the obstruction) has deprived them of the necessary degree of tension for transmitting the onward current. Moist heat, then, removes congestion, and is a very effectual means of equalizing the circulation through the affected parts; and, by giving rise to an increased determination of blood towards it, promotes the formation of matter, when inflammation is about to terminate in suppuration, and likewise it accelerates the separation of slough. All these effects will be more marked, the greater the extent of surface over which the moist heat is applied—

(a) Med. Gaz., vol. 27, pp. 477, 629.

(b) Gulstonian Lectures for 1841, Med. Gaz., vol. 28; also "Principles of Medicine," p. 209 et seq.

Weber having proved, by his experiments on the sensibility of the skin, that a slight impression made on a large surface of the integument has a much greater effect on the nervous system, than a stronger impression on a smaller surface. It is well known that a very severe burn, of trifling extent, will not produce nearly so much constitutional disturbance as one much less severe, but considerably more extensive; and Dr. Cullen has also stated that the emollient properties of water will be greater in proportion as its temperature can be increased without producing pain or inconvenience. Moist heat has, moreover, a cooling effect in promoting a free and more abundant perspiration.

(b) *In Internal Inflammation.*—Here moist heat not only has a soothing and relaxing action, but likewise a very powerful derivative and revulsive one; and, when we consider the great vascularity of the cutaneous tissue, we can readily conceive how easily it can produce this latter effect, and what an important and useful agent it must be in inflammations of the peritoneum, the stomach, the bowels, the liver, the bladder, the kidneys, and the lungs. Independently, however, of its soothing and revulsive properties, it seems, likewise, to do good by becoming absorbed, and then acting directly on the inflamed structures themselves; and I may here remark, that this absorbent power of the skin may be of considerable value to us in the treatment of disease, by enabling certain active remedies to be absorbed with the warm fluid, and brought into actual contact with the affected parts.

In inflammation of the lungs the external application of warmth and moisture will be found a very effectual means of relieving the oppressive dyspnoea; while its relaxing effects render it likewise a very valuable remedy in spasmodic affections, as colic, &c. I may refer, as examples of this, to the influence of baths in the reduction of dislocations, in spasmodic stricture, and in strangulated hernia.

(c) *In many Cutaneous Eruptions, Ulcers, &c.,* it is also extremely beneficial; and numerous other cases might be adduced in which it is productive of very good effects, but sufficient examples have been given to prove its value. I will, therefore, proceed at once to consider—

##### 2. THE NATURE OF, AND THE OBJECTIONS TO, THE ORDINARY POULTICES.

There is no therapeutic agent that has been more commonly resorted to in the treatment of disease, both by the medical practitioner and the public in general, than the common bread-and-water and linseed-meal poultices—a proof, if any were required, of the great repute in which they have been held; a fact, too, that is fully exemplified in the writings of Abernethy, in which he speaks very highly in their favour, and enters minutely into the process of making them. In describing the linseed-meal, or what he terms the "greasy poultice," he says: "it is beautifully smooth, delightfully soft, warm, and comfortable to the feelings of the patient, and is the best application that can be made to an inflamed part," "provided," as he says in another place, "the linseed meal with which it is made is sufficiently fine; but I never see any such thing now as good, fine linseed meal; it is all pressed into oil-cake and given to cattle to fatten them." Still, however beneficial they may have been, they have not unfortunately been free from objections; and from the last paragraph above quoted we may infer, and very justly, that even Abernethy himself had frequently cause to complain. Since his time, great progress has been made in both medicine and surgery; and medical men have been led, in consequence of these objections, to abandon, in a great measure, the use of poultices, and to have recourse to other means of applying warmth and moisture, with a view to produce equally good effects, unattended by disadvantages. It is doubtful, however, whether the requisite beneficial results, such as can be obtained by the proper application of moist heat, have been produced by the materials that have been hitherto substituted for them.

Poultices are external applications, or epithems of a pulpy and tenacious consistence, possessing

emollient, sedative, stimulating, tonic, astringent, or antiseptic properties, according to the nature of the ingredients of which they are made. They may be said to consist of two parts:—the *liquor* or *fluid* part, and the *corpus*, or that upon which their consistence depends. A third, the *accessorium*, which is not always present, was added by the ancient pharmacutists. The corpus, or body of the poultice, is generally formed of bread, linseed meal, potato starch, bran, or malt, and is intended merely as a recipient for the *liquor* and the *accessorium*, upon which alone the effects of cataplasms depend. The liquor consists of simple water or some mucilaginous decoction; and any addition made to it with a view of converting the common emollient poultice, which I take as the type, into one of a sedative, stimulating, tonic, astringent, or antiseptic character, is to be considered as an *accessorium*.

The great objections that have been raised against the ordinary poultices are, that they do not retain their warmth for a sufficient length of time; that they soon become dry and harsh, and require frequent changing; that the material or substance, which is usually employed to give them the requisite consistence, is of that nature as not only to enter quickly into decomposition, and in this state to evolve a very fetid, disagreeable odour, and likewise to irritate the skin, and even in some cases to occasion a pustular eruption, but also to form with the water a heavy compound, perfectly insupportable in many very painful affections. This is more particularly the case with linseed meal, which has the property of combining with the fluid, and thus preventing its proper, necessary, and effectual contact with the skin. In a word, as has been well remarked by Mr. Liston in his "Operative Surgery," p. 33—"Weight, putrefaction, fermentation, stench, and filth are inseparable from the best and most scientifically contrived epithems and cataplasms." In fact, it is owing to these very great disadvantages, which constantly attend their application, and the impossibility of effectually producing all the beneficial effects of warmth and moisture by their means, that they are daily falling more generally into disuse; indeed they have long since been abandoned by some of our first surgeons; and Mr. Liston remarks (*loc. cit.*, p. 231), when alluding to this subject, that "a poultice, the very name of which is associated with putrefaction and nastiness, has very seldom been employed, either in my hospital or private practice, for the last ten or twelve years; in fact, our nurses at the North London have now almost forgotten the mode of forming the abomination." Under these circumstances, therefore, it became necessary to discover some material by which heat and moisture might be so effectually applied as to secure the whole of their highly-beneficial effects, without any attendant inconvenience or bad result. This has lately been most successfully accomplished by the newly-invented article I am about to introduce, and to which the attention of the profession is earnestly requested. And I do so with a full conviction, from the numerous trials that have been made of it, both by myself and other professional men, that it will be found to be admirably adapted for the purposes for which it is intended.

A poultice should be a light, clean, and comfortable application, free from any unpleasant smell or tendency to decomposition. It ought, also, to be easily and quickly made, capable of holding a large quantity of fluid, and be a bad conductor of heat, in order that it may not cool too rapidly, and require to be too frequently renewed; while its corpus, or body, should act merely as a receptacle for the liquid, so that the latter may come into direct contact with the part to which the epithem is applied.

Such, then, being the necessary requisites for materials intended to convey heat and moisture, let us see whether they are possessed by the one I am now recommending.

This is an article composed of a mixture of sponge and wool, felted together so as to form an even and soft fabric, which may be made of various degrees of thickness, and afterwards rendered impermeable by a coating of India rubber. Hence, I



propose to term it the "impermeable spongopiline." Its texture, then, is spongy, and it is thereby enabled, in the first place, to hold a considerable quantity of fluid, which it readily yields to the part to which it is applied; and, in the second place, it is a bad conductor of heat: consequently, from this, and from the evaporation being at the same time prevented by its caoutchouc backing, it retains its warmth and moisture for a much longer time, and produces much more beneficial results, than any other substance, even when covered with oil-silk, inasmuch as this, although perfectly impervious when new and good, allows the vapour to escape between it and the material over which it is placed.

This watery vapour, therefore, being effectually prevented from passing off by the India rubber, tends to keep up the temperature of the epithem, and to greatly promote, for a considerable period, and without the necessity for frequent renewal, its soothing and relaxing action. How different in this respect to the ordinary poultice, which, I maintain, requires to be renewed at least every hour, and in many cases oftener, to ensure the requisite and beneficial effects of its warmth and moisture; for it is well known that after that time, sometimes long before, there is no longer any warmth in the epithem. This, however, is but very seldom, if ever, done; on the contrary, it is allowed to remain for as many as four, six, eight, and ten hours, and even longer, during nearly the whole of which time it is not only useless, but in many instances decidedly injurious.

There is another circumstance connected with the common poultice, which is: that the greater the heat of the part, the more frequently does it require to be changed: for the caloric, which, under these circumstances, is disengaged, very speedily dries up its moisture, and greatly accelerates the putrefactive fermentation, or decomposition. Now, to neglect this, or, on the other hand, to pay the strictest attention to it, would be alike a source of considerable annoyance to the patient. Let us suppose, for instance, a person to give the most careful and unremitting attention to the hourly repetition of the poultice, with a view to procure the utmost benefit from its warmth and moisture; can it be denied that this is extremely irksome, and indeed, as every medical man must have observed, painful, to the sufferer? On the contrary, suppose the person is not so attentive, and, instead of changing the cataplasm, allows it to remain, as we have before mentioned, for several hours; what, then, is the result? Why, it becomes dry, adheres to the part, and undergoes decomposition; very fetid, disagreeable gases are evolved, which are so irritating as frequently to produce a pustular eruption, and aggravate the affection for which it was applied.

Hence, then, a poultice can never constitute a proper and effectual means of applying warmth and moisture; whereas the new material is perfectly free from this very important objection, inasmuch as, if allowed to remain on for twenty-four hours, it will be found, at the end of that time, both warm and moist. It is to this that I attribute its highly beneficial action, and the very favourable and satisfactory results of its employment in numerous cases.

Besides these advantages of the new epithems, its little bulk and extreme lightness render it capable of very extensive application. Thus it is well adapted for all parts, however uneven, and for all cases where heat and moisture are required, of no matter how painful a character: as in the former it can be retained in its place with the greatest facility; while in the latter it causes not the slightest inconvenience to the patient. Nothing can be more disagreeable than the ordinary poultices, when applied to the head or face, or to the groins, in which latter situation they can be but very imperfectly retained, in consequence of their weight and pulsatious nature. In these cases, the superiority of the "impermeable spongopiline" must be at once apparent. In the first, it constitutes a delightfully soft, warm, and soothing application, free from any unpleasant smell; and in the second, it is extremely useful in enabling the working man, whose maintenance, as well as that of his family, depends upon

his exertions, to go about his usual avocations, with the swelling covered by a comfortable, light, convenient, and beneficial cataplasm.

Another great advantage of this article is, that it can be had of various shapes, as gloves, for instance, and of any size, so that a whole limb, and even the whole body, if necessary, may be poulticed with the greatest ease: it being, in fact, a ready-made cataplasm, so to speak, requiring only to be impregnated with hot water to be fit for use. A vast amount of time and trouble is thus saved, and all chance of the poultice being badly made avoided: for I may mention, that, although so common, or rather popular, a remedy, but few persons know how to form it. It may also be had of any thickness, so that it is applicable not only as a substitute for poultices and fomentations, but also for the "water dressing," in which, in addition to its answering the purpose of the oiled silk, in keeping the lint moist, it has the effect of absorbing any discharge that may take place from the wound. Moreover, it is cheaper than anything ever yet employed, and when this is considered, together with its unobjectionable qualities, it is evident that to hospitals, dispensaries, and other charities, and to the poor in particular, who can but very ill afford the expense attendant upon a long-continued course of poulticing, especially with bread, the "staff of life," this article must be invaluable. In short, it will, I think, be acknowledged by all, from what I have stated respecting it, that I am sufficiently warranted in confidently recommending it.

The principle object when using the spongopiline is to impregnate it with as much liquid as it can conveniently hold without running out. This may be done either by placing the epithem on the surface of the water, and allowing it to completely saturate itself, the superabundance being afterwards expressed by gently passing the hand across it, or by pressing the fluid from the borders; or, secondly, by placing it on the hand or on a table, and pouring the water on it. By impregnating it in this way, we avoid wetting the backing, and thus save the time that would be necessary for drying it, and likewise run no risk of moistening the patient's linen.

19, Langham-place.

#### TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrac, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

Mr. Close, Manchester, writes—"I congratulate you upon the wisdom and value of the views you are now propounding in reference to Dr. Forbes's articles. I am myself a lover of free and fair thinking; but I do fear that very clever writer and editor has overstepped the legitimate bounds of such an exercise."

Dr. Nottingham's request is complied with.

Dr. Hilber's communication shall appear, if possible, in our next number.

J. B. W.—We do not prescribe medicines in the MEDICAL TIMES, or give gratis opinions as physicians.

Norfolk.—We think the duplicate practice successfully evades the act of 1815.

Surrey.—We think the word "chemist" no protection against the Apothecaries' Company.

A Country Practitioner, who sends us his name

and address, assures us that his eyes are opened by the letters of "Vox Veritatis," and that he feels it would be treachery to his order to leave his interests any longer in charge of "The Fellows" and physicians who have the management of the Provincial Medical Association. He urges that gentlemen taking the same views should take the same course. We share our correspondent's opinion, and add, in the words of Lucan—

"Exeat aula,

Qui volet esse pius."

A Sheep's epistle is evidently written in a very bitter spirit. Besides, there is no reason for its descending into a personal question. The public grounds are surely sufficiently strong.

H. B., who addresses the long letter to the College of Surgeons, asking them to undo their injustice, has not paid attention to the progress of the question. The Council would treat him as insane. They are rioting in the exuberance of their success. They have the Provincial Association in their favour.

Galen.—The able letter of our correspondent on Dr. Forbes's new views of physic shall appear, we hope, in an early number.

Medicus.—There is no earthly chance of the Registration Bill becoming law. The general practitioners will oppose it to a man. It would be the downfall of high qualifications; would be a premium to cheap licensing shops; would shut up every London school; would beget a competition which should give diplomas on the easiest terms; would give a satisfactory sanction to the "charter," &c. &c. There is no chance for it.

An Edinburgh M.D.—We think there would be some difference, but the difference will depend wholly on the temper or character of the Examiners.

Dr. Daniel, of the Isle of Nevis, is informed that, though obliged by his proposal, we must decline it. We have no space for the publication of his work.

M.D. cannot recover for services rendered as a physician unless there be proof of a contract, written or verbal, to pay; a physician's fee being a quiddam honorarium, like a barrister's. The "old rascal of a lawyer," therefore, has the best of it. If proceedings are taken, they must be taken through the agency of an attorney; and as an honest one is out of the question, we think our correspondent's position, between the "two old rascals of lawyers" not one to be ambitioned.

A Medical Student says—"If what Dr. Forbes says in the article on hydropathy be correct, why, then, the money which professors obtain from us must be under false pretences." Laconic, certainly.

## THE MEDICAL TIMES.

SATURDAY, NOVEMBER 14, 1846.

### CRIMINAL INFORMATION AGAINST THE MEDICAL TIMES.

At the last moment, just going to press, the information reaches us that Mr. Thomas Wakley has applied to the Court of Queen's Bench for the protection of a criminal information.

We need not apprise our readers, who know the spirit in which we are accustomed to address the public, that we rejoice at this result—rejoicing not the less because the complaining party, having the aid of an Attorney-General's precedence, has yet allowed the courts to be ten days open before submitting to them his complaint—the complaint, be it remembered, of an accused judicial authority. He has been as backward from the commencement of November to the 12th, as from August to November.



Why do we rejoice at this result? Because all we have said of the Hounslow inquest, every word of it—and the Coroner has not *dared*, it would appear, to place before the court more than one of the articles we dedicated to that tragic proceeding—was founded on a deep and thorough conviction that English justice, in a magistrate's hands, never presented before so hideous or dangerous a front, and that every interest of this country's jurisprudence, as well as every interest of the practitioners of the important calling of medicine, was at stake, if such outrages on judicial investigations as that at Hounslow could be allowed to pass with impunity and without inquiry.

That inquiry—full, searching, and conclusive—must now come; and we repeat, that we are rejoiced above measure that we have thus attained the “beginning of the end” and object of our labours. That end *we* await in calmness, in satisfaction, in confidence.

“Sed fugit interea, fugit irreparabile tempus.”—VIRGIL.

THE host of writers who have addressed us on the good or evil of the Provincial Medical and Surgical Association might well accuse us, in the language of one of them, of a discourtesy unwonted, or a caution unworthy, if we omitted longer to declare ourselves in reply to the inquiry which the exciting subject provokes from all parts—

“Under which King, Bezonian—speak or die?”

Let us proceed, then, without eagerness, yet also without hesitation, to our response.

To give precedence to a truth, ominously significant, it is unquestionable that the views to which we have opened our columns are the views of the whole profession. Tried by the test of public opinion, the Association stands condemned. The verdict is as unanimous as it is adverse. The handwriting on the wall was not more legible nor damnable.

Is there ground for a different opinion? Is the *vox populi* of an enlightened profession not the *vox Dei*? Scarcely can we admit it *possible*. Against the probability stands that terrible witness—the present state of the profession. For more than the sixth part of a century has the Association existed, and, now that it is beginning to pass from the strength of manhood into the dotage of a premature age—when in its strength is seen weakness, in its weakness is felt unpopularity—the great truth is recognised, that it witnesses the profession in a worse state, both in government and social ease, than in the first hour when it made our acquaintance.

This convicting fact stands out like an earlier phenomenon—with all the consuming brightness of a flame in that night, the history of the Association, with all the obscurity of a cloud in that day—the history of the profession.

It is a column of condemning evidence—a monument of reproachful testimony. It is history. The sixth of a century, in a large Association, has left things as bad as it found them!

It is of course clear, that with this unanswerable accusation against them—or rather with this great fact standing between them and de-

nial—without some weighty palliation, they have no decent *locus stundi* before their subscribers. They must either account for their extraordinary untowardness, or be overwhelmed by it. What, then, is their palliation? What their explanation?

We know not!

We have gone to their reports in vain for an answer. One petition per annum, on *some* occasions laid on the table; a memorial once in five years, actually *sent* it may be; a statement published, if not stuck to, once in a decade; a promise, every annual epoch of payment, that something will shortly be done by Parliament or the public, which, never being done, allows the convenience of that promise's reiteration at the return of the usual and proper season. Turn over the reports, we say, and if the past is the guide of the future, if

“Experience doth attain  
To something of prophetic strain,”

we have here not only a history of the past fifteen years, but a full Raphaelic summary of what the Association will achieve, in the way of professional amelioration, in the eventful fifteen years to come!

“*Could* we have done more?”—we hear one of the Council interject. “*Could* you have done less?” we reply. Had you tortured your ingenuity, you could not! You have aroused the profession, just to let them cool; you have united them, just to let them do nothing. You have *concentred* them into impuissance, *directed* them into inaction. You have not acted—you have not tried to act—on the public: you have not influenced—you have not tried to influence—the Parliament. In the thousand journals of the empire you have not a proselyte nor an advocate; of the six hundred and fifty-eight members of the Commons, there is not an exponent or defender. Professing to seek the greatest of all changes, you have kept carefully outside all social influence. You have carefully eschewed power, as though it were a sin. On system, you have occupied yourselves in making bricks without straw. It was the mole talking of ascending the skies, and proving its sincerity by burrowing as before. With your sixth of a century and your thousands of pounds, you have done nothing, because—and how laboriously you know—you have tried to do nothing!

The Association wants even the small praise of keeping for us what we had. So far from bettering our position, it has witnessed, tolerated—we deliberately add, *caused* our deterioration. Who can forget, who forgive, the front shown by the Association, when that most infamous of legal robberies—the new charter—was forced on the insulted members of the College of Surgeons? We warned, incessantly warned, the profession, and especially the Council of that Association, of the coming curse. What did they to avert it? When it came, far from contenting ourselves with the half encomium of a quiet protest, we expressed in unmeasured language our horror and disgust at the injustice, and roused the profession to a just sense of indignity at the outrage! Associations were formed, meetings held, subscriptions raised, and a strong public opinion set in active,

and for a time (till low treachery came) in *effective*, motion. What did the Council of the Provincial Medical and Surgical Association? Where was its indignation, its zeal, its public meetings, its effective demonstrations! Alas! where were they? We had them not, and, unfortunately, we had for them a worse substitute than silence. The Association was not *wholly* motionless, not thoroughly speechless: its action and voice were worse for us than the want of either: for they gauged for the enemy the exact weakness of our union, and encouraged him in the policy of holding out!

Their lukewarm censures, their tepid condemnations, chilled the ardour of the profession in the same proportion as they withdrew from it all chance of effective co-operation; and the enormous injustice of the College of Surgeons found its best defence in the faint disapprobation of the Fellow-ridden Council of the Provincial Association!

Thus, then, stands our brief account:—

The Association, with thousands and thousands of pounds, and during the sixth part of a century, ought, as the consideration of its support—

1. To have ameliorated the state of the profession.

2. To have guarded it from aggression and injury.

The years have gone by never to be recalled; the money has been spent never to be retouched; and—

1. THE PROFESSION IS NOT AMELIORATED.

2. THE PROFESSION IS MUCH, VERY MUCH DETERIORATED.

These, then, are the fruits of our many years' agitations and promises!

These, then, are the results of our many years' payments and pledges!

Oh, *excellent Council*! Oh, well-served subscribers! Oh, fortunate profession!

But surely there is hope—that solace of him that has no other—the still-surviving refuge of wretches whose last bubble has broken—whose final plank has proved a shadow. Let us see.

We will fancy, then, this great Association contrives, with a magnificent revenue, and an applauded management, to have, after so long-aged a travail, nothing, absolutely nothing, to show for the costly and responsible confidence so long extended, and the multiform hopes so often raised. We will even content ourselves under the unlucky certainty, that the Council have toiled and laboured this sixth of a century through, and have not caught for us one poor minnow of legislation. At least, then, they have prepared the way for something: at least something worthy of so costly and protracted a gestation is promised: they have surely something magnificent (if no where else) in the wind. What is, then, the attractive bill of fare? What, then, the inviting programme? Let them lay down to us the outline of the great coming campaign!

Ah, yes: the fact must be mentioned to their credit: the Council, however deficient of a performance, are not to be caught without a promise. You may as soon catch a weasel asleep,



as the Council without a tub to throw to the whale, if the whale really appear and demand it. Since our correspondents have addressed the profession on grievances they had no longer patience to tolerate, the Council have come forward with their stereotyped consideration for long years' hard cash and soft expectations—another promise; and positively do not hesitate to assure us that they are not without aims and designs and pleas for the future. Forgive them the past, and they have something capital, very capital, for us the next year. We reprint their programme of the season. Anything more consolatory, under our huge bereavement of cash—anything more completely atoning for a lost epoch of a whole medical generation—it would be difficult to imagine. But it speaks for itself so well, we may let the whole, word for word, tell its own tale:—

"As the time is now drawing near in which it will be desirable once more to make known to her Majesty's Government the requirements of the members of the medical profession for a reform of their institutions, it will be borne in mind that other objects in addition to registration require attention. The registration is important as a *preliminary* measure, as at once drawing a broad, intelligible, and strongly marked line of distinction between the qualified medical practitioner and the unqualified pretender; but the members of the Provincial Medical and Surgical Association will not forget the principles adopted, and from the first contended for, by the Association. They will bear in mind that the Association stands pledged to a sufficient primary qualification for all who enter the medical profession, to the securing to all so qualified equal rights of practice, and to the attainment of the representative system in the councils and governing bodies of the several institutions."

The heart panting for professional amelioration must find it difficult to restrain its enthusiasm while glowing through the elevated details of the coming campaign. How worthy the programme resulting from so many years' labours of so many illustrious reformers! It is instinct with life and action and hopefulness—a microscope would fail to find in it a molecule of indifference, frigidity, or despondency. Medical reformers in their graves must be almost awakened by its trumpet sounds; and singular, indeed, must be the sympathy which, with that voice in its ear, moodily bethinks itself of a generation's toils lost, or a treasure equalling a nation's votes for its education, flung useless to the trunkmakers!

But in the effusion of the heart's sympathies let us not overlook the "*practical*." The document presents us with the important avowal that the *preliminary* measure to be supported and sought by the Council is not protection against quackery, not the restitution of surgeons to their own place in their own College, not the provision of a uniform or equal education of all medical men; but solely and wholly a registration as physicians, surgeons (Fellows), and general practitioners, with the collateral privilege to Scottish and foreign colleges of making registered practitioners in any number, at any price, or with any amount of education! The Council—four-fifths Fellows and Scottish Graduates—*acknowledge that they struggle for this convenient, this honourable registration of themselves as the alpha of medical reform!* Let them get it, and we shall soon see what

trouble they will take in securing us the "omega"!

"Scelera ipsa, nefasque  
Hac mercede placent!"

What is remarkable about this document, thus putting forward "registration" as "the *preliminary*" measure, is, that the statement altogether is notoriously a concession to fear; without which, it is almost certain that they would have been well enough content with the "preliminary" measure, to have accepted it as an *ultimatum as well as a "preliminary."* Practically it contains all they want, as contradistinguished from the body of general practitioners. They talk of equal education: they want the *distinguishing* registration. The Wiltshire peasant raked the pond professedly for moonshine: having found a less glittering prize, that suited his real object better—a smuggled keg—he generously abandoned the advantages of the further search to his less keen-witted companions. Aid the "Fellows," and the physicians now equivocally placed by law, to establish a national record that they are the princes of the profession in the year of grace 1846, and they will not embarrass us with much assistance in obtaining equal rights with them in the year 1847! The Scotch Graduate secured an English supremacy, the English Fellow guaranteed an inviolable charter-made superiority, will be quite, quite content. They will have had the smuggled keg; and we may go on raking for legislative moonshine!

"Despicere unde queas alios, passimque videre  
Errare, atque viam palantes querere vitæ."

LUCRETIVS.

BEFORE we proceed to treat of the various medicinal usages of cold water by the profession, antecedently to the abuse of it by Preissnitz, and the quacks who have copied him, we have a few more remarks to make upon the article which has suggested our comments. Dr. Forbes says:—"A saint may sing the devil's tunes without contamination; a hero may wield the weapon he has wrested from a robber or murderer; the medicament or formula of the most arrant quack may be hallowed in the prescription of the true physician." (P. 429.) This we very much doubt. We are inclined to think that the air of "Jim Crow," or "Rosin the Beau," would be about as appropriate as the versification thereof in any respectable place of worship. The *unities* want preserving, as well in the pulpit as on the stage; and any one of the "devil's tunes" in a church or chapel would be as subversive of devotion, as a harlequin's dress for Hamlet would be the antithesis of his tragic character. The weapon of a robber, or murderer, a hero might seize in a moment of emergency to defend himself with; but, that over, the more hero he was, the less inclination he would have to take into his service an instrument of crime. An unclean vessel is hardly the vehicle to use for cleanly purposes. As regards the *adoption* of a formula, or a remedy, from a quack, it will be time to talk about any such dubious proceeding, when it can be shown that quackery possesses any knowledge which ourselves do not possess in greater abundance and perfection. To join a band of smugglers in their division of booty would be an act of

wickedness; but it would be, additionally, an act of *folly* to join them without first learning whether they had any treasure to share!

"If hydropathy is, as we believe, a therapeutic agent of great power and value, it would be worse than absurd to exclude it from legitimate medicine; but, if it is to be adopted by the profession, it can only be adopted in a strictly professional manner." (P. 430.) If the term "hydropathy," in this sentence, is intended to signify the remedial use of cold water, internally or externally, in large quantities or in small, alone, or conjointly with medicaments: then we affirm that it has not only never been excluded from legitimate practice, but that it *commenced* therein, and has been, as we will hereafter show, a familiar remedy with the profession, from the days of Hippocrates to the present time. As for ourselves *adopting* it, we *originated* it; the quacks have *adopted it from us!* But if the term "hydropathy," in keeping with the quackish practice thereof, means a fierce outcry against all legitimate medicine; an utter disregard of all diagnosis; a similarity of treatment for all cases, whether acute or chronic, serious or simple; an unblushing system of newspaper advertising; the opening of places like hotels, only differing from them in meanness of fare and uniformity of beverage; and the unscrupulous practice of *case-coining* and *public-gulling*;—should *this hydropathy* be meant, then we pray Heaven avert the possibility of any decent members of our profession betaking themselves to any such imposture!

The only "strictly professional" practice of hydropathy, is that which was in vogue before Preissnitz was in fashion, and ere bankrupt shopkeepers and renegades from our ranks adventured a fraud upon the credulity of the people! The hydropathy, as at present *advertised*, is nothing more than a scheme for needy men to get a living by; any fellow with an available share of impudence, and a little ready money, will do to practise it;—science and skill, of course, are out of the question; for, whilst its successful "founder" has carried on a lucrative trade, with the intellectual capital of the veriest clown, it is presumable that the nearer the heads of his followers approximate in quality his own, the more likely they will be to rival him in the successfulness of recompense. To "adopt" a trade like this, would be just as praiseworthy on our part, as to announce *St. John Long, redivivus*, in the shape of a stimulating liniment; or, a *voice from Morrison*, in the form of a box of aperient pills.

"In such an hospital (hydropathic), although drugs would doubtless be but in slight requisition, it would be contrary to all rational proceeding to exclude their use entirely. The very fact of patients being sent to such an hospital presupposes the previous failure of drugs, or at least presumes their unsuitableness in that particular instance," &c. (P. 430.) This is an extraordinary doctrine. If it be presumable that, in a particular case, *medicines have proved useless*, and the patient is sent into a cold-water establishment, *to be treated hydropathically*,



why *have any medicines* in that establishment? If physic have already failed in the hands of its legitimate and judicious employers, why intrust it to other men, the nature of whose occupation necessarily limits their knowledge of it? The manner in which poor physic is brought in, here, reminds us of an old anecdote belonging to Abernethy. Having asked a candidate, at his examination, what means he would use to procure perspiration in a certain disease, the student exhausted all the resources of his memory and imagination, and still the pertinacious old man continued to bore him with: "Well, Sir, and if that failed, then what would you do?" The lad, driven to his wit's end, at last exclaimed, "Then, Sir, I would send him to you to be examined, and if that did not make him sweat, it is my opinion his case would be hopeless!" So it is with physic, in a hydropathic establishment. In such a place, of course, there is only one crotchet—*cold water!* An unhappy sufferer comes in, say with chronic cough; they pump *at* him, and *into* him; drench him until he is nearly starved to death, and then dry-rub him until he is half flayed; and, *if his pocket will stand the pumping*, the process is generally a very long one. Should his cough wear him out, he coolly dies, and nothing is said about it; should the cough *wear itself out*, cold water has worked the cure; should neither happen, then medicines are to be given, and hydropathy gets the credit of the recovery.

"We have accepted, at the hands of our hydropathic authors, more than one alleged fact and explanation, although their validity seems to us questionable. And we have done this, because the statements are of a kind justly to challenge attention and demand thorough investigation." (P. 431.) Our hydropathic authors! What men are there in quackish hydropathy that belong to *us*?—There is not a man amongst them who would be received in an honourable medical assembly, or whom a respectable practitioner would meet in consultation. Our hydropathic authors!—Surely, Dr. Forbes would not connect, in the same sentence, the names that head his article with those of Bartholin, Keck, Pechlin, Kinglake, Floyer, Baynard, and Currie? As for "accepting alleged facts" whose "validity seems to be questionable," the logic of the thing is quite novel to us, and we apprehend it to be somewhat novel in medicine. Facts, that are *really such*, are the only commodities we care for—those that wear a seeming of *imposition*, we reject as unworthy our smallest confidence. As for accepting them for the sake of seeing what they are really made of, it occurs to us to think that intelligent attention might be much better directed.

"Another maxim of Preissnitz is, that his patients are never to take any kind of drug. It should be remarked that, not being licensed to practise medicine, it would be illegal for him to administer drugs. So that it does not follow from his disuse of them, that he himself would be opposed to their use *in all cases*, much less that their use is in any way *inconsistent* with his practice." (P. 440.) If it be a *maxim* of Preiss-

nitz not to give drugs, of course this is quite independent of any government restrictions on the subject. *His maxim being this*, he would not avail himself of physic, if all the apothecaries' shops in the universe were open to him. And does Dr. Forbes condescend to laud a man *who treats disease on such a maxim as this*? Does he himself believe that, in all cases, medicine can be dispensed with, if plenty of water can be obtained? If such be his creed, why not "throw physic to the dogs" at once, and not hesitate to say it? If such be *not his faith*, why panegyricize a man *whose faith it is*? Surely there must be some sad oversight in all this? How happens it that we are advised to study the principles of a German impostor, who is considered to be so thoroughly such in his own country, that he is not allowed to prescribe so much as a dose of Epsom salts?

Next, we come to a description of the person of the said Preissnitz: Dr. Forbes quotes from the pen of Sir Charles Scudamore! This really must be a joke! If Sir Charles have actually begun to eulogize the German, it will soon be all over with his reputation. The only plan of washing him away more speedily would be for Grant ("Random Recollection" Grant) to advertise a book called "Reminiscences of Preissnitz and Pump-water"!

Dr. Forbes says, travellers all agree in stating, that this mundane Aquarius "is a most arbitrary and tyrannical despot, issuing laws as irrevocable as those of the Medes and Persians, commanding obedience with a haughtiness that might well excite admiration and envy, even in an autocrat, and exciting as much fear in his patients as is found in the subjects of the Grand Turk himself." (P. 436.) The greater fools his patients for letting him, say we. The fellow is clearly an illustration of the old adage, "Put a beggar on a horse and he will ride to —." For a German peasant to be bold in his booby-ness, and play at dignity with the dupes of his imposture, excites in us no wonder at all: he is not the first adventurer who has covered his illiteracy with assurance, and has made swagger the substitute for moral courage and fortitude. The greatest assumption is always met with in the smallest minds, and it really astonishes us that Dr. Forbes should take the Bombastes Furioso style of a German quack, for other than it is—a grander covering of a graver deception! As for his cases—most that go to him will "get well of themselves, only let them alone." And for his cures, who is to attach any importance to them, seeing that the man himself has no knowledge whatever of disease? He may call simple cold and cough—consumption; chronic bronchitis—asthma; rheumatic numbness—paralysis; headache with heaviness—apoplexy; congestion of the lungs—inflammation, &c. Not only he *may*, but we know he *has* committed such errors, and very natural ones we call them, for a man of his capacity and acquirement. But who, in his unprejudiced senses, would think of trusting the statements of such a source? Properly speaking, nothing that Preissnitz may say, in reference to the existence of disease, is worth a moment's notice, and for the simple reason, that he cannot possibly know

anything about it. And this sublime specimen we are advised to credit, to countenance, and to consult! *Proh pudor!* It would have been far better to have applied to him the motto—"Ne sutor supra crepidam."

## MEDICAL REFORM.

### LETTERS

TO THE MEMBERS OF  
THE PROVINCIAL MEDICAL AND  
SURGICAL ASSOCIATION.  
BY A GENERAL PRACTITIONER.

#### LETTER IV.

GENTLEMEN,—I find that the letters that I have already addressed to you have excited considerable attention; not, I believe, so much for their own merits, as for the turpitude they have been the means of disclosing. The excellent letters of "UNUS QUORUM" and "ECHO VERITATIS" tell the extent of the disgust entertained against your Association. The trumpet only required to be sounded, and a host of armed men spring forth at its bidding. Give a voice to Justice, and she will make the earth ring with her cries. She is often mute until the key-note of her wrongs is struck, and then she will discourse such music as will rouse the indignation of the most humiliated victims of oppression. That man must be a dastard, indeed, who will silently endure insult, and allow himself to be made a tool for others' uses.

It has been admitted, gentlemen, in the organ of your Association, that the Council are composed of *Scotch Graduates* and *FELLOWS of the College of Surgeons*; but the excuse is, at the same time, offered, that the Scotch Graduates are not all Scotchmen; and that many of the Fellows of the College of Surgeons are in general practice. Now, it never was my intention, *and never shall be my act*, to carry on a warfare against races or individuals. A Scotchman practising in England with a Scotch degree is still, in my opinion, an honest man than an Englishman using the same imposture. I beg my readers clearly to understand that I am not warring with Scotchmen or Irishmen as *such*; for, if I know myself, there is no propensity for which I have greater contempt. I esteem every man for his own merits, and I hold all good men to be of one brotherhood; and, if any individual man endeavour to fix upon me such an unworthy line of argument as that insinuated, he will do it at his own peril, and, most certainly, to his own disgrace. I denounce a *system*.

We are told also that many of the Fellows of the College of Surgeons are in general practice. Where did the editor of your journal acquire such a recondite piece of information? Astute man! What a hearty chuckle he must have indulged in when he made this notable discovery! Has Sir Ascley Cooper never said that two-thirds of his practice was medical, and that a *pure surgeon* must necessarily starve? Were there no recent examples of the fact in the twenty-four Councillors of the College? Oh, no! nobody knew it but the sapient editor of the "Provincial Journal," who had doubtless picked it out of some black-letter record of the old corporation of Barber-Surgeons. Common sense will never want an effigy so long as Dr. Streeten wears the cowl of the confessor. The fact of these gentlemen being in *general practice*, and standing before the world with a superior title, *unjustly* earned, aggravates the injury. As general practitioners, all were equal; as Fellows of the College



of Surgeons, a few override the betrayed and insulted majority, deprive them of an equal chance in the same line of practice, damage their professional character, blast their prospects and interests, and are, hence, the most willing tools for the perpetration of those corruptions in medical government by which they live and prosper.

*The general practitioners must govern themselves.* Self-government is the golden rule of medical politics. It is not that there may not be some very excellent men even among the Councillors of the College of Surgeons; but as a body they are our opponents—our enemies! In no class of life, more especially among the members of our liberal profession, will you find twenty-four men, from whom you could not select a decent character; but in a corporation all individuality is engulfed,—even moral eminence sinks down to the dead level of corporate selfishness, and the only check to this downward tendency, and the injustice of which it is the parent, lies in the *complete identity of interest* between the governing body and the members.

In returning, gentlemen, to the statement on which we commented last week, we observe that the Council have cited the *principle of representation* as essential to a complete measure of medical reform. What credit, do you think, attaches to the Council, for their tardy and lukewarm recognition of so important a principle—the very basis of all sound legislation? The admission of this maxim was wrung from them by public opinion—it was literally squeezed out of them by the two arms of the vice between which they were placed; they simply gasped it forth in the extremity of their agony; they feared instant death, and the rack tortured from them this reluctant confession. With them it was a mere word, a cry—an empty, insincere avowal of what could not be withheld; the NATIONAL INSTITUTE has already converted into a FACT what was only a theory with the Provincial Association. Which are the true reformers?

The Council of this Association have almost entirely disregarded even the semblance of this principle in the constitution of their body; they are *self-elected*. Even Dr. STREETEN, with all his excusatory adroitness, admits this in his leader of the 28th instant, when he informs us “that the members of the Council are appointed at the general meetings of the Association; that no exclusion is practised; that the appointments are made to meet the convenience of the branches.” He does not even pretend that the thirty or forty dubs and fellows who assemble at these general meetings go through the form of an election; for, after even the enactment of such a farce, it would amount to nothing less than self-election. He is too wily an apologist to employ the word election at all, because he knows that the term is perfectly inadmissible. He makes a merit of the nomination of members of Council by district branches; but how long do you imagine, gentlemen, that the Council have been able to arrogate to themselves this astonishing amount of praise? The resolution was passed at the general meeting held at Nottingham, 7th and 8th of August, 1844, and runs thus:—

“That the district branches be empowered to present for election to the General Council such of their members as may be deemed advantageous to the general and local interests of the Association.”

The words are, “*present for election*,” not elect: so that, notwithstanding the nomination of these district members, the Council have the power of excluding any individual so nominated from their board! They tell us “that no exclusion is practised.” Modest men! they bear their honours

with exceeding meekness. They only desire to hold the lash *in terrorem* over a refractory branch, but they have no wish to exercise their power until it becomes *convenient* to do so. This is in the true spirit of despotic power. The members owe everything to the *generosity* of the Council, and possess nothing by their own right! Away with such vile hypocrisy! The end is come.

They have been organized fifteen years, and, during at least the latter part of that time, have contented themselves with preaching one thing and doing another. The mask they have worn has veiled their motives and aims from public scrutiny; believing them honest, we have judged with leniency, and conducted the most palpably injurious to medical interests at large has been ascribed to mistake rather than design. This immunity from censure cannot be allowed to continue: the claims of a thrasonical pretension—the merits of a factitious popularity—must be investigated and adjudged. Deeds must be traced to their designs, and, if these are found scandalous, reproach must fall upon their authors. Public men are amenable to public opinion; and it is a duty on the part of individuals who are even so *imperfectly informed* as Dr. Streeten assures his readers the writer of these letters is on medical subjects, to pronounce boldly their judgment on the evidence. If there are any men who enjoy so delicate a sensibility, so frigid a current of animal spirits, that the least word of honest censure sends a rigor through their susceptible frames, I can only compassionate them, but certainly shall not turn aside from the steady execution of this duty.

Again, gentlemen, the question recurs, of what USE is the Provincial Association? The NATIONAL INSTITUTE have already established the representative principle on a sure basis; of what value, then, is the advocacy of the other body? The principles of a uniform standard of qualification and equal rights were the main points comprised in Sir James Graham's successive bills, and must necessarily be constituents of any future comprehensive measure of medical reform. These principles, so fully acknowledged, possess the positive character of facts. Is it not, then, absurd that any Association should be kept in existence to perform *obsolete* services—to do nothing, or worse, to do evil? Why should you spend your money in vain? Better at once cast it into the mire, than give it to maintain a hoax—you yourselves being the dupes. You pay your money to be laughed at—you purchase your own dishonour. Are you not tired of being doubly fleeced—in pocket and character? You must not expect that the Council will break up the Association. This would be an act of suicide they will never commit; it is therefore necessary, when the cup of guilt is full, that the dose should be administered by the hand of another. It is not a very enviable office, but it is a *necessary* one. It is not every association that is so moderate as the late League, which terminated its existence when it could be no longer useful. I am sorry to say that such political integrity has never existed in our profession. The Provincial Association has outlived its uses, and must perish.

I have told you, gentlemen, in plain language, that the ruling members of the Council of your Association, being chiefly Scotch physicians, exercise their power to the disadvantage of your interests, and to the advancement of their own. I have proved this by an examination of their principles, as professed in their documents, and acted upon on every available occasion. I will now demonstrate beyond all cavil the absolute subserviency

of this body to Scottish interests, and the complete alienation of all sympathy displayed by the Council for the wishes of their members, the general practitioners.

The statement which we have recently depicted was followed up, in the November following, by a series of *resolutions* passed at a meeting of the Association held at Derby, and which were intended to embody the views of the Council in reference to the Government bills then before the profession. These resolutions were notorious enough at the time, but, as it is probable that my numerous readers may have forgotten the events of that period, I shall here transcribe them, and exhibit to the world the subtle machinations, the dirty subserviency, and the disgraceful selfishness of this Council. That excellent and honourable man, Mr. Martin, of Reigate, together with his friend Mr. Stedman, of Guildford, were the worthy minority on that occasion in protesting against the folly, or rather the wickedness, of the Council.

These resolutions were a mere transcript of others published by the Royal College of Physicians of Edinburgh; and more crushing evidence could not be adduced of the selfishness and duplicity of the dubs in the Council of the Association. Doubtless, they were employed by the Scotch College to advocate Scottish interests, and they seem to have done the bidding of their masters with servile alacrity. It is true, that they were at the same time promoting their own ends, and this may account for their promptitude and their meanness; but to do this by the sacrifice of the interests of their members, who supplied them with means and influence, was a *ruse* thoroughly treacherous and despicable.

I will now subjoin a few of the resolutions, printing in italics such expressions as are copied *verbatim* by the Provincial Association from the Edinburgh College.

RESOLUTIONS of the COLLEGE of PHYSICIANS of EDINBURGH, Oct., 1844.

1st. “That the College testify their satisfaction that the bill for the better regulation of medical education and practice, so long expected, has, at length, been laid before the House of Commons, and has had a first reading.”

2nd. “That this satisfaction has been increased by the knowledge that the two great principles of the measure—viz., a uniform standard of education and qualification, and the abolition of all local privileges—are those for the recognition of which the College have on various occasions contended, and expressed the same opinion in petitions to the Legislature.”

3rd. “That the principles now specified, if carried fully into effect, would confer a great benefit on the profession and the public, and would

RESOLUTIONS of the PROVINCIAL ASSOCIATION, held at DERBY, Nov., 1844.

1st. “That the Association testify their satisfaction that a bill for the better regulation of medical education and practice has been laid before the House of Commons, and that opportunity is afforded to the members of the medical profession for considering its provisions previous to its passing into a law.”

2nd. “That this satisfaction is increased by observing that an approach to a uniform standard of education and qualification, and the right to practise by all qualified persons, without respect to local privileges—principles for the recognition of which the Association has on various occasions contended, and especially in petitions to the Legislature, and memorials to her Majesty's Government—are two of the great leading principles of the measure.”

4th. “That these principles, if carried fully into effect, would confer a great benefit on the profession and the public, in the removal of many ex-



## MISCELLANEOUS CORRESPONDENCE.

## HOSPITAL ELECTIONS.

[To the Editor of the Medical Times.]

SIR,—On Monday last, a House-Surgeon to our Infirmary was elected, the nomination of whom was seconded by one of the physicians of the Institution; and, as his observations on the subject of testimonials appear to me to have been very erroneous, I beg to direct your attention thereto, and, through the medium of your journal, that of your readers, in order that similar errors and mistatements may not be again had recourse to, to the manifest disadvantage of some talented and deserving candidates.

The rules of the Institution very properly require that the House-Surgeon shall be a member of a College of Surgeons, and a Licentiate of the Apothecaries' Society. In this instance, two candidates printed their testimonials. One of them, a stranger to the town, produced testimonials from the lecturers in a provincial medical school, together with two or three from Dublin, and one from Paris. He had also gained a prize or two in the provincial school, and was qualified by having passed the College and Hall.

The other candidate, a native of the town, had received his education in the endowed grammar school of the town; had been apprenticed to the then house-surgeon of the Infirmary; had proceeded to St. Bartholomew's Hospital, and had also qualified himself by passing the College and Hall. He produced testimonials of a very high character from Messrs. Lawrence, Vincent, Stanley, M'Whinnie, and Paget, and from Drs. Roupell and Rigby, as well as from one of the surgeons to the Bedford Infirmary, and from the house-surgeon whom he served.

I shall pass over the very unfair and objectionable mode of canvass which was resorted to, and other erroneous statements which were made by the physician before alluded to, on the occasion of his seconding the nomination of his candidate, and shall confine myself to the observations which he made upon the relative merits of the provincial and metropolitan testimonials. It is on this point that we are desirous of having your opinion, and of making known that opinion to the public. On this subject the public may be misinformed and misguided by a designing and interested party; but it is to be hoped that sufficient public spirit exists to investigate the truth of the matter, and to counteract the mistatements of any one individual.

The physician referred to remarked that London testimonials are entirely valueless; that in attending lectures and hospital practice in such a school as St. Bartholomew's, with so large a class of students, it is impossible for the physicians and surgeons to take cognizance of the several pupils, and to be able to certify to their assiduity, &c.; that testimonials of this kind are given as a mere matter of form; that they are invariably couched in the same terms, and are not worthy of the slightest notice.

On the other hand, he observed, in the small provincial schools, each pupil is personally known to the lecturers, and hospital physicians and surgeons, and that, therefore, testimonials from these gentlemen are pre-eminently worthy of credit and notice.

With reference to prizes, it suited his purpose to be silent, and to refrain from observing, that in the small provincials schools they are obtained with comparative ease; whereas, in the large metropolitan schools, a man must necessarily possess pre-eminent qualifications to distinguish himself as a prizeman, or to claim the special notice of the lecturers, &c.

Now, Mr. Editor, I would ask if the course thus pursued by one of the medical officers of the Institution were a correct one; and more especially would I ask if there is the difference in value between provincial and metropolitan testimonials which was represented to the governors of our Infirmary?

I cannot think that the medical officers of St. Bartholomew's would give such as the enclosed tes-

timonials, without having an intimate knowledge of the pupil in whose favour they were written; and can speak from personal observation on the subject, that in the large school to which I had the honour to belong, testimonials are only given to persons who are well known to be worthy of them.

This is a subject of some little importance to the metropolitan schools: for, if it were to be the fashion (but I would fain hope that not another medical man in the kingdom could be found to undertake a similar advocacy) to decry the testimonials from *their* professors, every aspirant to public situations would find it to be to his advantage to procure provincial testimonials in preference to London ones, and to neglect the tuition of the most eminent individuals in the world.

I have refrained from giving any names, in order that all personalities should be avoided, and that we may be favoured with your unbiassed opinion on the points alluded to. Giving you my own name and address, and holding myself responsible for the correctness of the statements herein contained,

I am, Sir, your obedient servant,  
FAIR PLAY.

Bedford, Nov. 7.

\* \* We have never had an appeal made to us with stronger claims on our respectful attention. The system of hospital elections is so faulty in itself, and of its own essence, that we are doubly interested in warding off from it additional and adventitious deformities, especially when superinduced by men of our own cloth—gentlemen who should be the last to lend them countenance. In the case before us we cannot but think that the physician spoken of carried the license of electioneering excitement to a very equivocal, nay culpable, extent. It is all very well to uphold the attainments of our own candidate, but it is not well to do so to the *unjust* and *false* disparagement of the claims of a second—that second a medical man like the physician himself, and, like him, depending on professional repute for a professional existence. The physician addressing a large audience on a responsible topic is, of course, taken to be addressing them "on his faith" as a professional man, and should no more attempt to mislead them in their judgment, than if he were giving evidence before a jury of the country. In what way, then, can we view the allegations of the value of provincial and worthlessness of metropolitan testimonials? If there be any difference, the fact is notorious, that it is a difference wholly in favour of the London schools—a fact no way wonderful, since the lecturers here are less dependent on students and pupils, and less under local influences. If the election of the candidate thus supported was secured by this extraordinary mistatement or mistake, a severe injustice practically in results, as well as verbally by calumnious agencies, has been done to the other gentleman, and it well deserves consideration, whether on all sides, especially that of the physician aforesaid, the first *amende* would not be a fair re-election under *veracious* circumstances.—  
Ed. Medical Times.

#### A FEW PRACTICAL OBSERVATIONS ON THE LATE PREVAILING AUTUMNAL DISEASES—ENGLISH CHOLERA, COLIC, DYSENTERY, AND DIARRHŒA.

By THOS. HODSON, Esq., M.R.C.S. Eng.

The symptoms of English cholera I need not dilate upon, as they must be familiar to all, and the treatment, I think, requires but little comment. The plan I have found to be most successful consists in giving chloric ether, combined with tincture of opium, mucilage of gum arabic, and carbonate of soda, in a mixture, proportioned according to circumstances, with the turpentine stupe to the abdomen, until reaction takes place; after-

remove the evils and remedy the abuses now existing, and of which, for a long time past, there has been too good reason to complain."

4th. "That in thus providing the public with a supply of fully qualified general practitioners, the College are of opinion that the Government," &c.

I feel, gentlemen, that I should be occupying you time disadvantageously by transcribing these resolutions at greater length. I have brought to light sufficient evidence to prove my charge, that the Council of this Association are the *hireling* and *self-interested* advocates of illegal practitioners in this country, and that they are the servile understrappers of the Edinburgh College.

Were you, general practitioners, aware of the use to which your resources were applied? Are you satisfied that your sentiments should be represented to the Government by the hired lacqueys of a wily, encroaching, and self-aggrandizing College of Physicians? Is not the fable of the *WOLF* and the *SHEEP* too painfully applicable? Is treachery a word too hard wherewith to stigmatize conduct so ineffably base? I am myself astonished at the consummate hardihood with which so shameful a dereliction of duty was perpetrated. When I commenced this enterprise I was prepared to find many gross anomalies in the history and conduct of the Association; but I must confess that even I am astounded beyond expectation. Each new revelation startles me, and the higher I lift the veil the more my indignation boils at the atrocious misconduct laid bare to the eye. Anticipation is mocked.

Did these persons flatter themselves that such political malversation could be done in security? Whom the gods wish to ruin, they first infatuate.

An ignorant man is always self-confident. An individual incapable of estimating the strength of an enemy rushes wildly into danger: he does not know his peril until he is borne to the ground. A cunning man, too, fortifies himself in his own self-sufficiency; alert to every mean artifice, he measures success by the immediate result, and he congratulates himself even upon his imbecility. Busily engaged with the toils he is laying, he does not perceive that his own foot is caught in the snare. Your Council are so surrounded with pitfalls that they dare not stir from their hiding-places; they are afraid to lift their voices, lest the echo should convict them. The swing of the lash has made its circle, and it now cuts into themselves; they writhe under the torture, but they dare not exclaim, because they know that the punishment comes from their own hand. They are afraid of reproach—afraid of ridicule; they know their own treachery, and they dread exposure; they cannot raise their arm without laying themselves open to a fearful retaliation. This is the penalty of acting with duplicity. The hurden of insincerity with which a hypocrite voluntarily loads himself at length breaks his back. So let it be with all deceivers.

On the next occasion I shall take into consideration the conduct of the Council in reference to the Registration Bill.

I have the honour to be, Gentlemen,

Yours, very faithfully,

VOX VERITATIS.

THE ANATOMICAL MUSEUM OF CAMBRIDGE.—The Syndicate appointed to visit this institution have reported favourably of it, and especially of the preparations added to it during the last 12 months,

isting evils; and that, in thus providing the public with a supply of fully qualified medical practitioners, the Association are of opinion that the Government would do much towards the remedy of abuses, of which, for a long time past, there has been great reason to complain."



wards, the chloric ether should be discontinued, and, should the complaint run into diarrhoea, chalk mixture, with or without tincture of catechu or kino, may be substituted.

Colic may next be touched upon. A purgative of castor oil, with a certain proportion of tincture of opium, in the first instance, and the turpentine fomentations, or flannels wrung out in hot water, will in most cases cure the complaint; but, when the stomach is so irritable as not to bear it, calomel and opium, with enemias, are the only and, according to my experience, the most efficient means of affording relief. Dysentery, as its fatality has been more than ordinarily great this year, deserves somewhat more consideration than either of the two preceding. It has many peculiarities, as I have seen it (and I only speak from my own observation), which are very interesting; and in its complications requires more tact and judgment, on the part of the practitioner, than any other form of bowel complaint. If called in to a case in the commencement, I give the castor-oil mixture. I never lay down any general rule as to the doses of medicines; but would say, in this instance, an ounce of castor oil, rubbed up with mucilage or yolk of egg, with a drachm or two of tincture of opium to the half-pint mixture, is the maximum quantity. Two table-spoonfuls for a dose, every second, third, or fourth hour, according to the urgency of the symptoms. Sometimes the stomach rejects it; in such a case, about four drops of creosote added to the mixture invariably cause it to remain. I look upon this as an admirable remedy, not forgetting the very serviceable adjuvant—in all cases of purely spasmodic pain—the turpentine stupe; and I should be wanting in justice, were I not here to mention, that to your excellent periodical I owe the compliment of first suggesting to me the use of this mixture. Though, as I have previously said, the castor oil may sometimes be rejected, yet I have been surprised to find, in many cases, that it will remain on the stomach, where almost everything else is thrown up. The majority of the cases under my care, this year as well as last, have had these striking peculiarities, viz.:—fulness of the abdomen, throughout the course of the complaint; no fever; the tongue comparatively clean, and generally, when furred, remarkably white. This is the ordinary form of the complaint—the least dangerous, the most tractable, and the soonest cured. Great prostration of strength too, in most cases, remains for a considerable period. Other peculiarities are, the tendency to a relapse; absence of tenderness on pressure, except occasionally over the cæcum, which is indicative of inflammation, and which requires the free and repeated application of leeches; as also touching the gums with the hydr. c. creta, combined with opium. The complications—sero-enteritis and general muco-enteritis—require more active treatment; regulated, of course, according to the circumstances of the case. The further auxiliary treatment consists in administering enemias of starch and laudanum, starch and port wine, or even cold water. Notwithstanding my vaunted faith in these measures, I must candidly confess, cases have occurred in which they have failed; the dilute nitric acid with mucilage and opium have been then resorted to, as also chalk mixture and creosote (and here I may make a passing observation on the employment of creosote, and that is, my condemnation of it in large doses; and in no case should it be given, in whatever dose, where the mucous membrane is extensively ulcerated, or in those few cases characterized by extreme redness of the tongue and enlargement of the papillæ), acetate of lead, &c. &c., all of which seemed to me to have little or no effect, the complaint running on and generally terminating favourably, when all medicines were discontinued, and when, as a last resource, port wine was freely administered—our great sheet-anchor, the renovator of the vital fluid—when life appears to be at an ebb. Lastly, diarrhoea, as the sequence of dysentery, or as a primary disease, is frequently very intractable, but more so in children than adults, for many reasons that it would be here superfluous to detail. In the cases of children, chalk mixtures with various combinations, with a milk diet, when not con-

neeted with mesenteric disease, will be found to answer best; while acetate of lead and sulphate of copper, with opium, should be tried in the cases of adults, when the more simple remedies fail, but should be prescribed with great caution, as it is well known that poisonous effects may be the consequence of either, when carried too far (I have known acetate of lead produce paralysis of the sphincter ani), and that such substances substitute themselves for the earthy bases of the animal tissues.

#### GOSSIP OF THE WEEK.

WAR-OFFICE, Nov. 3.—49th Foot—H. Beckwith to be Assistant-Surgeon, vice Garrett, promoted to be Staff-Surgeon, 2nd class. Nov. 6.—37th—Assistant-Surgeon James William Fleming, from the 70th Foot, to be Assistant-Surgeon. 70th—Assistant-Surgeon John William Johnston, M.D., from the 1st West India Regiment, to be Assistant-Surgeon, vice Fleming, appointed to the 37th Foot. 1st West India Regiment—William Sedgewick Saunders to be Assistant-Surgeon, vice Johnston appointed to the 70th Foot.

UNIVERSITY OF LONDON. M.B. SECOND EXAMINATION, 1846.—The following candidates have recently passed this examination, viz.:—*First Division*: Bompas, Joseph Carpenter, University College; Day, John Climensson, London Hospital; Elam, Charles, Leeds School of Medicine; Goodridge, Henry Frederic Augustus, University College; Hawksley, Thomas, King's College; Johnston, James, Queen's College, Birmingham; Sturt, Thomas James, King's College. *Second Division*: Arlidge, John Thomas, King's College; Birkett, George, Charing-cross Hospital; Cowdell, Charles, University College; Duncan, Peter Martin, King's College; Eton, Edward William, St. George's Hospital; Mason, Thomas Peter, Original School of Medicine, Peter-street, Dublin.

VACCINATION IN IRELAND.—(From a Correspondent.)—The following is one of the evils arising from the "cheap and wholesale" system of vaccinating under the Poor Relief Act in this country:—"A well-known itinerant medical quack visited Kilfinane a few days since, and inoculated a number of children with the smallpox virus. The greatest anxiety, strange to say, was manifested by parents to avail themselves of his presence. There seems prevalent an opinion that this disease, when communicated by inoculation, is not so dangerous as when taken in the usual way, notwithstanding that, on a former visit of this same person in July, two out of every three children that died of smallpox had been inoculated by him. Vaccination is sinking into disrepute. Repeated instances of its inefficacy as a preservative from the smallpox having occurred of late years, these instances were perhaps only apparent from neglect to procure pure vaccine matter, or when the incision was made, from subsequent inattention as to whether the vaccine infection was mingled with the blood. We have now to add, that six children inoculated for the smallpox in the above district died of the disease."—*Limerick Chronicle*. I may remark that the above district is evidently *not* one of those where the practitioners hand over the vile "fee" to "the Medical Benevolent Relief Fund," as was agreed some time since at a meeting of the Medical Association of Ireland.

A MEXICAN PHYSICIAN.—Imagine all the dilapidated streets illuminated by lamps and fireworks, and two young men slowly pacing along to see whatever the festival might produce. We soon fell in with an officer of the Mexican army, with a profusion of hair on his face, and lace on his pantaloons. He saluted us without introduction, except by looking at the Mexican crest on our buttons. "Sta bueno," said he; and, seizing our arms, entered into conversation in Spanish, occasionally interspersed with bits of very broken English. He took us round to the principal illuminations, where different devices were formed, and rude transparencies, expressive of liberty and national independence. Our conversation now turned on the beauty of the Vera Cruz ladies, and our new friend informed us that he had married an English wife, and asked us to accompany him to their residence. We agreed; and accordingly

walked till we arrived in a deserted, lampless, back street, and, entering a dark passage, began to ascend a flight of still darker stairs. Groping our way up, we at length reached the top; when the Mexican opening a door to the right, we suddenly found ourselves in the lady's bedroom; and, what was more, with the lady in bed. The delicacy of an Englishwoman was of course outraged by this heedless exposure before her countrymen. But why in bed at this early hour of the evening? Was the lady unwell, we inquired. No answer was returned. She was some time before she recovered from her embarrassment, though we had seated ourselves, and did what we could to pass the matter off. The Mexican officer sat simpering upon an old box at the foot of the bed, and grinned as he looked from her to us, and from us to her, in the very mistaken notion that he understood what we spoke of. He now made an attempt to ask us, in broken English, something about what money we had? The Englishwoman suddenly stopped him with a kick from beneath the coverlet, slyly given as she thought, and then made a very bad excuse, in the shape of a false translation of what he had said. We let this pass, and began to ask about the nature of her indisposition, as she certainly appeared very sallow and languid. She answered coolly, that she was recovering from the yellow fever! My companion and myself looked at each other in dismay. She had had it about a fortnight, she said, but she really was recovering; and he (pointing to the grinning Mexican) would cure her at last, she was sure. "He!" exclaimed we in surprise. "Oh, yes," was the answer, "he is a doctor!" The truth now pretty clearly appeared, and we could not forbear laughing, notwithstanding our apprehensions, at the whimsical impudence of the roguery, in bringing men, under the pretence of an introduction to a countrywoman, that they might catch the fever, and give a professional gentleman of Vera Cruz the honour and profit of endeavouring to cure them! We drew out our cigars, smoking being considered a protection from infection; and, by way of supporting the English character for boldness, we sat with grim quietude for nearly a quarter of an hour after receiving the above pleasant information. The adventure was not altogether unworthy of Gil Blas.

#### MORTALITY TABLE.

For the Week ending Saturday, Nov. 7, 1846.

Causes of Death	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES.....	944	1000	968
SPECIFIED CAUSES...	939	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	167	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	103	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	138	151	157
Diseases of the Lungs, and of the other Organs of Respiration.....	303	313	294
Diseases of the Heart and Blood-vessels.....	38	29	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	74	70	72
Diseases of the Kidneys, &c.	9	8	7
Childbirth, Diseases of the Uterus, &c.	19	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	13	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	5	2	2
Old Age.....	39	66	67
Violence, Privation, Cold, and Intemperance.....	31	27	26



No. 373. SUMMARY. Nov. 21.

## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY—

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## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF MEDICINE.

Meeting of Nov. 10; M. ROCHE in the Chair.

This meeting was occupied by an irregular and uninteresting debate on the 7th conclusion of the Report on the Plague. The two first paragraphs were adopted, and the Academy formed into committee at half-past four.

## HOPITAL DES ENFANS.

## POLYPUS OF THE RECTUM—CLINICAL LECTURE, BY M. GUERSANT, JUN.

A little girl was lately admitted under the following circumstances:—Two months since, blood was passed in small quantities with the motions, and during the expulsion of the fæces a red tumour was observed to protrude from the anus. When a child presenting these symptoms is brought to a surgeon, it is natural to suppose that the case is one of prolapsus ani: this opinion must not, however, be exclusively adopted; we have several times detected in such children the presence of polypus in the rectum. It is worthy of remark, that no ancient or modern work on the diseases of infancy has alluded to this form of disease. M. Stoltz, in 1831, was the first to give a history of the symptoms, and two cases only were previously on record: one published in "Hobold's Journal," 1828, by M. Schneider; the other, by Dr. Lange, of Berlin, in 1776.

The first signs are those above mentioned, viz., sanguineous motions, and tenesmus; defæcation gradually becomes more and more impeded, in proportion as the polypus increases in size, and is accompanied by violent efforts of expulsion, which force out from the intestine a red, even tumour, at first easily reduced. We have often noticed a sign which we conceive to be of some value—it is the presence of a groove or furrow on the surface of the fæces, caused by the pressure of the polypus; but the issue of the tumour through the anus is the only certain diagnostic sign. During the first period of the complaint the swelling is round, and slightly flattened at its sides; the external segment is more voluminous than its intestinal portion.

Authors do not agree upon the nature of these growths: some consider them to be of a fibro-cellular structure; others, on the contrary, believe them to be always of a mucous texture. Thus, M. Stoltz thinks, that in many cases, they are the result of frequently repeated prolapsus ani, a portion of mucous membrane incarcerated in the ring of the sphincters becoming congested, swollen, and pediculated after a certain period. Such may be, in some instances, the real mode according to which polypus of the rectum is generated, but there are many exceptions—thus, polypus is frequently observed on mucous surfaces unprovided with sphincter muscles; besides, prolapsus ani has other well-known results; let us add, that polypus has been observed in subjects who had

never suffered from prolapsus ani. We have usually found these polypi to consist of a mucous sheath borrowed from the mucous membrane of the rectum, enveloping a spongy texture.

So long as the tumours do not issue through the rectum, a hemorrhagic discharge from the intestine, and the nature of the stains of the linen, cannot furnish a positive basis to the diagnosis; the finger must be introduced *per anum*, the pedicle of the tumour accurately circumscribed, and the spot of its insertion precisely ascertained. Although the prognosis must usually be favourable, still the abundance and frequent return of hemorrhage may seriously injure a child's health, and it is therefore necessary to come to a speedy determination when once the nature of the disease has been correctly ascertained. The spontaneous cure can readily be understood; the polypus, gradually expelled by efforts of defæcation, drags more and more upon the pedicle, which daily diminishes in diameter and increases in length, until at last it yields to the frequent repetition of the efforts; the polypus falls away, and a spontaneous removal of the complaint may be said to have taken place. Perhaps, even such polypi may have been the unknown and unsuspecting cause of rebellious diarrhœa, which ceased after their spontaneous expulsion, after medicines of various kinds had previously been exhibited without success.

We do not approve of the use of caustics, because their action is uncertain, and their application in cavities like the rectum is always inconvenient, and sometimes unsafe. Excision we adopt only when the neck of the tumour is very narrow, because even a slight hemorrhage may endanger the life of a child. We prefer to all other methods, simple ligature, because all danger from loss of blood is obviated, and the little patients suffer no pain: in general, when the implantation of the pedicle is not very high, the threads may be simply carried with the finger round the neck; but, in the contrary case, the introduction of the speculum and considerably facilitates the operation.

## SOCIETY OF SURGERY.

Meeting of Oct. 28; M. LENOIR in the Chair.

## DISLOCATION OF THE SHOULDER.

M. Robert exhibited to the meeting a dislocation of the humerus downwards, artificially produced on the dead subject. The head of the bone rests upon the ridge of the scapula, immediately beneath the glenoid cavity, in a sort of groove formed in front by the subscapularis, and posteriorly by the long portion of the triceps muscle. This form of displacement had been admitted by T. L. Petit, Boyer, A. Cooper, &c.; and M. Malgaigne, in refusing to admit its possibility, had, M. Robert believed, been guilty of error.

M. Malgaigne insisted that M. Robert's artificial luxation was not downwards only, but also forward; the head of the humerus being on the inner side of a line drawn perpendicularly from the glenoid surface.

M. Chassaignac had collected twelve *post-mortem* examinations of recent dislocation of the shoulder; the head of the humerus was most generally found to lie on the anterior face of the scapula, inside the glenoid cavity; and at a variable distance from the coracoid process. Sometimes it may rise as high as the basis of that bony projection; at other times, it is seated below the glenoid surface; and in some cases rests upon the axillary margin of the scapula. These differences of position, M. Chassaignac had long since mentioned in his annotations to the translation of Sir A. Cooper's works; he considered them to be of importance, inasmuch as they explain very material differences in the signs of the displacement.

FIBROUS BODY IN THE WOMB.—Dr. Michom presented the uterus of a woman who had lately died in his wards. When she was admitted the organs were examined, and toucher detected in the os uteri a solid tumour, to which the floodings the patient complained of were naturally referred. Removal of the fibrous growth was contemplated, when acute thoracic disease occurred, and the woman died. On dissection, a fibrous tumour was found in the upper part of the anterior wall of the womb, and the morbid production of the os tincæ contained fluid. M. Michom observed that the error of diagnosis he fell into was almost inevitable, inasmuch as a fibrous production really existed in the womb, causing the losses of blood which had been erroneously attributed to the tumour of the neck.

OPERATION FOR THE REMOVAL OF VICIOUS CONSOLIDATION OF FRACTURED BONE. BY DR. MALGAIGNE.—The operation had been performed on a child, aged eight years, of a strong constitution, who broke his leg at the age of twelve months; and the fracture having been neglected, the bones united in the most irregular manner. The fracture had taken place at the union of the inferior third with the two superior thirds of the leg, and had been permitted to unite at right angles. The muscles of the posterior region of the leg were contracted, and the deformed limb was ten centimètres (3½ inches) shorter than the other. The child had been brought to M. Guersant, who refused to perform any operation; the case had been laid before the Society of Surgery in the month of July, and opinions had been very much divided on the propriety of attempting any surgical measures for the purpose of straightening the leg. On the solicitation of the family, M. Malgaigne, however, was induced to try the following plan:—The fibula being first divided with Mr. Liston's osteo tome, a portion of bone in the shape of a wedge was removed from the tibia with a saw, and the periosteum of the posterior part of the bone was not divided. The bones were then straightened, and the limb placed in a fracture dressing. On the third day hospital gangrene appeared, and the child died ten days after operation.

THE GUN COTTON AND PAPER, by M. PELOUZE.



—At the last meeting of the Academy of Sciences, M. Pelouze made some observations on the mode of preparation of his explosive paper; and stated, that two of his pupils had discovered an easy method of ascertaining whether or not the paper had been properly prepared. If the paper dissolves in sulphuric ether, it is perfect; and when it is not fit for use, it is insoluble. With the balistic and explosive properties of this new agent of destruction, by which is truly realized a maxim laid down by a celebrated French author—"Nothing in the universe is half so dangerous as a sheet of white paper"—and with the value of the discovery in the arts of war, we have nothing to do. M. Pelouze asserts, that by the action of nitric acid upon vegetable matter a compound is produced which consists only of cellulose and nitrogen, which, resembling albumen, casein, and fibrin, by its elementary composition, might, like them, yield an alimentary substance. Experiments have been made upon three dogs; during four days each animal was fed on rice and explosive paper, taking every day nine oz. of rice and three of paper; it is true that the dogs did not lose weight during the period, but the exhibition of the rice must invalidate the experiment.

#### A. REPORTS.

##### FORENSIC MEDICINE.

A British subject, an M.D. of the Faculty of Paris, received from the mayor of the city of T—, in Normandy, instructions to report on the death of a person whose body was found suspended from a door. The report was not accepted by the Procureur du Roi, on the ground that, "although the medical degree conferred upon the graduate the right of practising legal medicine, it did not confer that of practising legal medicine, a report being the act of a public functionary, which could only be accomplished by a French subject." Against this decision, Dr. O. appealed to the Dean of the Faculty of Paris, who referred the matter to the Association de Prévoyance des Médecins de Paris. A commission was named to inquire into the subject, and the following are the conclusions of the reporter, Dr. A. Cardieu, Professor Agrégé of the Faculty of Paris:—

"Whereas, the report of a physician in a case of legal medicine is by no means a public act, but a simple document, which may be neglected, disused, or even contradicted, notwithstanding the acknowledged importance.

"Whereas, the formula of the oath does not bind to allegiance, but merely to truth.

"Whereas, the right of reporting in such cases does not constitute a *civil right*, nor a *public function*, no plausible reason can be brought forward to refuse to foreigners, graduates of French faculties, the power of reporting in a case of legal medicine, which the diploma confers upon all who have obtained it."

#### B. SECRECY.

In 1844, Dr. St. Pair being called before the Juge d'Instruction of La Pointe à Pitre, in order to make his deposition on the facts of a duel which had taken place a short time previously, and in which one of the principals had been wounded, refused to answer the questions put to him, on the plea that the knowledge he had obtained of the facts in question had been acquired by him in the discharge of his professional duties. Dr. St. Pair was condemned to pay a fine of 150 francs. Dr. St. Pair appealed, and a short time after was summoned before the assizes, to bear witness in the same case, and the court ruled that his deposition should not be heard. The affair is at present before the Court of Cassation, and the Association de Prévoyance laid before the court, in defence of Dr. St. Pair's conduct, a consultation, of which the following are the principal points:—

When a physician is called to a patient, whatever he sees, hears, or knows, is only seen, heard, or known by him in his professional capacity, and under the seal of secrecy. Silence on these facts is therefore for him a duty, and at the same time a right. According to the statutes of the ancient Faculty of Paris, he should recollect that "*Ægrorum arcana, visa, audita, intellecta eliminat nemo.*" When revelation is demanded by a tribunal, the

Court of Cassation has on various occasions ruled that secrecy is still the right of the physician, and has even decided that, when pressed by cross-examination, the physician may obey only his conscience in the discrimination of the facts which he should conceal. M. St. Pair was therefore perfectly justified in his silence.

DAN M'CARTHY, D.M.P.

### ORIGINAL CONTRIBUTIONS.

#### The Nature, Causes, and Treatment of Mental Diseases.

By M. PINEL, M.D., Member of the Academy of Medicine, formerly Physician to the Bicêtre and Salpêtrière Asylums, Author of the "*Traité Médico-Philosophique sur l'Aliénation Mentale*," "*Médecine Clinique*," "*Nosographie Philosophique*," &c. &c. Translated, with Notes, illustrative of some important Doctrines in Physiology, Phrenology, and Moral Education,

By DR. COSTELLO,

Principal of Wyke House Asylum, Editor of the *Cyclopedia of Practical Surgery*, &c.

##### EDUCATION OF THE BRAIN.

If the moral treatment must be made to act in every way on the mind of the insane man by the numberless indirect and external means which it may call into play, it should follow up its work, so that by a kind of education it may form the brain to new habits which would supplant those inequalities and defects previously observed in the thoughts, feelings, or affections. This is a noble task, and requires in the physician such a thorough consciousness of elevation of mind as will enable him to descend to the level of the most painful infirmities, and to put in practice that untiring patience which teaches him, by observing the patients, to guess the motives of their actions, and to act powerfully, and at the favourable moment, on their intellect. But he is not to perform this difficult task alone; all his subordinates should be animated by his views, promoting them when he is present, supplying his place when he is absent, and thus, by a continuous agency, carrying out his plans still more efficaciously than he can himself, during the short periods of his visits.

This education of the brain cannot be reduced to practice at all periods, or under every form of delirium; it must be employed at the proper time, like everything else. When a calm begins to succeed to the first explosion of insanity, and isolation, and the administration of medicines has subdued the general irritation, when the ideas lose that degree of fixity, and that excitement which prevented the brain from receiving or appreciating new impressions, diminishes, then should we reduce to practice that education of which we can furnish only the general principles.

We ought carefully to avoid exciting the minds of the insane on the subject of their delirium; but it is an error, too generally prevalent, that we ought not to thwart them in their delirium, but that, for fear of exasperating them, we ought to give full scope to their extravagancies. This is an infallible means of rendering their insanity incurable; and this fatal humouring, which it is impossible to prevent when the patient is treated at home, is one of the chief reasons that render the change of place necessary. If you allow a patient under the influence of ideas of mysticism, or exaggerated religious feeling, to give way to what an over-scrupulous zeal inspires—if you continually flatter the ambitious maniac who thinks himself a king or an emperor, who proclaims himself to be a messenger from God, and that you encourage by your silence or your approbation, his illusions of authority, command, and superiority—you are certain of never curing; and you may very often make of him a very dangerous madman. The same holds good as regards delirium from love: uniting with the object of her love, a person whose reason has been deranged by the breaking off of a marriage, or by jealous suspicions, will not effect her cure. Had such a union been contracted before the breaking out of the insanity, it might have prevented or delayed its explosion; but the delirium once established, both the senti-

ments and ideas become perverted; the beloved object now inspires indifference or repugnance, and the best course to take will be to endeavour to efface every recollection of the unhappy passion by substituting for it another which may prove more fortunate.

We must, therefore, act continually in the sense opposed to the habitual delirium of the maniac, and this requires no less tact for its opportune employment, than for its suspension when necessary. There is a note, p. 72 of the first edition of Pinel's work on Mania, relating to a patient who fancied himself the fourth person of the Trinity, and that his mission was to save the world, and who, under this unhappy monomania, committed several murders. Pinel was anxious to try the effect of moral means to combat his delirium, and he thus relates the case:—

"Amongst my attempts to correct his fatal bigotry, I should mention one that proved a failure. I placed him in company with a very cheerful convalescent who declaimed gracefully the poetry of Racine and Voltaire. I made the latter commit to memory part of Voltaire's poem on Natural Religion, and I took special pains to make him practise, so that he should deliver it distinctly, the third chant, which answered my views more nearly. When he at last came to the following verse:—

"Penses-tu que Trajan, Marc Aurèle, Titus,  
Noms chéris, noms sacrés que tu n'as jamais lus.  
De l'univers charmé, bienfaiteurs adorables,  
Soient au fond des enfers empalés par des diables,  
Et que tu seras, toi de rayons, couronné  
D'un chœur de chérubins sans cesse environné  
Pour avoir quelque temps, chargé d'une besace,  
Dormi dans l'ignorance, ou croupi dans la crasse?"

Pinel adds, that "the fanatic on hearing the last lines became quite furious, heaping on the declaimer the grossest abuse, calling him an impious blasphemous, and at last, after invoking fire from heaven to consume him, he shut himself up in his cell. I was unwilling to renew the attempt, lest it might excite anew his sanguinary ideas."

This case contains some valuable instruction, showing, as it does, that as regards the ideas of monomaniacs, moral treatment has some very rigorous obligations to observe, and that to the tenacity of those ideas, it has to oppose a tenacity still greater, as we shall see by-and-by.

In attempting to combat the general delirium of the maniac, we should, when the occasion requires, be ready to bring to our aid the degree of address or precaution needed. The excited maniac does not think himself ill, and whenever he becomes convinced that his health is seriously impaired, his cure is not far distant; he is convinced that his words and actions are perfectly consistent and directed by proper motives; if you tell him that he is talking nonsense, he will not believe you; nay, more, you will become an object of aversion to him, and you will have forfeited that confidence of which you will stand so much in need when he becomes calm; then you will bring to his recollection, cautiously, what he may have said. If his countenance betrays a too vivid emotion or shame, you must be prepared to turn aside a remembrance, which can be recalled if occasion require it, and to efface the painful impression by comparing it with his present tranquil state, his gradual amendment, and the assurance of a speedy restoration to health and liberty.

The physician, in his quality of supreme chief of an establishment, exercises very great influence on the minds of the insane; those who are still destitute of reason soon learn from the tranquil or the convalescent, that their fate depends on him, and that they must attend to and obey him in order to obtain for themselves whatever is just and reasonable; he is, therefore, the natural centre towards which all ideas and hopes are directed. With such influence, he has only to will in order to obtain the most happy results; the patients, subjugated by a kindness at once firm and just, are docile; they take the medicine ordered for them, and submit cheerfully to whatever is required of them. At his first visit especially, his influence will be the more striking, if, from previous knowledge of the cause of the disease, he



so directs his questions as to show that he penetrates into certain points which the patient endeavours to conceal, and thus induces him to confess certain fatal inclinations, faults, or a disposition to suicide, which are always dissembled, or concealed with the utmost care. Astounded at so much penetration, the patient soon avows the truth, and that he has been suffering from high fever. This point once gained, confidence in the physician is the chief characteristic in the subsequent treatment. In public hospitals, the influence of the physician is greater on the female than on the male patients: many of the former submit to every sacrifice, and eagerly obey every order of the physician, from the sole reason that he is a man, and that they like him. It appertains, therefore, and of necessity, to moral influence, that the physician should not labour under any physical deformities that might make him an object of derision.

One means of mutual education, infallible for convalescents, is that of bringing them together habitually in their occupations, meals, and recreations.

You begin to discover in these meetings the feelings of intimacy, from the enjoyment of which those unhappy beings have been so long withheld; their confidence in each other waxes strong in proportion to their participation in one common interest—that of returning to the bosom of their family, and of resuming the course of their usual occupations. They no longer feel any distrust of their former attendants, to whom they were so troublesome during their delirium. They become cheering examples, one to another: he who is discharged from the hospital to-day becomes an object of emulation for those who look forward to the same boon; they advise and help each other as regards the future. A convalescent who is only waiting for his discharge often adopts another not so near cure, and makes it his whole study to amuse him, until he effects the complete restoration of his reason; these disinterested attentions, these intimate confidences from one sufferer to another, this return of feelings of sympathy and affection, are of such incontestable utility in the moral treatment, that we must attribute to the absence of them the great want of success that attends the treatment of the rich, either in private lodgings or in their own homes.

When a patient has become sufficiently calm and rational to admit the visits of his relatives and friends, this new disposition becomes, as regards the moral treatment, a continual subject of salutary impressions; the time of those visits, however, and the manner in which they are to be made, deserve consideration. It is only at the instance of the patient, and not at those of the relatives, who are always blind and precipitate, that those interviews, which are often followed by a complete relapse, are to be granted. The patient to whom such a permission is given ought to be informed beforehand of the day and the name of the person who is coming to see him, or of the persons who are to accompany him; if, during the interview, he remains quiet and reasonable, without requiring to be removed immediately, or without showing too much emotion, it is a favourable sign. The following interviews may be more and more prolonged. These family conversations powerfully revive old affections and interests, and render the convalescent more docile to submit to the last trials, that are still looked to as the test of fully restored health. In chronic, incurable mania, these visits are attended with no sort of danger, but at the same time are productive of no sort of result; they may, however, be used to effect a vivid surprise, or an unexpected commotion; but it happens most frequently that the insane patient either pays no attention to those who visit him, or, while with them, he remains insensible or irrational.

We must never forget that there are rules to observe in the convalescence of the brain as in that of other organs, and that great circumspection is required in directing the gradual exercise of the emotions and affective sentiments. Nay, more,

after the perfect restoration of his faculties, we should still be on our guard, lest, through hurry or precipitation, we may revive a delirium, so easy to be renewed.

It is in the calm, chronic insanity more especially, the more difficult to be uprooted, from finding in its very calm the motives of a more fixed conviction, that the moral treatment must risk and dare everything, and that with a perseverance proportioned to the difficulty. "When the disorder of the passions and ideas exists alone, as in monomania, where an ungovernable passion or an hallucination are often the sole source and the sole expression of a delirium, pharmaceutical treatment cannot change the patient's convictions, repress his propensities, or dispel his hallucinations." The important point is, to distinguish in a practical point of view the intellectual phenomena from the physical—a distinction which has not hitherto been either studied or established rigorously, and has only been alluded to in a general way by M. Leuret, who has shown his sense of its importance by founding upon this distinction the exclusive application of moral treatment in certain cases. We should, besides, deeply analyse the feelings, propensities, and thoughts of the insane, and dive into the mechanism of the intellectual derangement, to come at the order of production and succession of the irrational ideas, and to hence deduce appropriate steps to be taken in shaping the application of moral treatment. We must, in a word, endeavour to discern and set apart the patient, whose attention, thoughts, and passions are likely to be fixed and mastered by the physician, in order that he may be able to take advantage of opportunities for calling moral influences to his aid, and to avail himself of the best manner of employing them.

It is in such cases that the physician is called upon to make the most of his resources to overcome the repugnance and opposition of the patient when he resists his pressing solicitations. He will, in order to compel him to take to some occupation, have recourse to some continuous moral restraint, or to those sudden shocks, or fortuitous impressions, the sudden impulse of which will sometimes awaken the reason.

This treatment should be applied exclusively in cases of hallucination, monomania, and melancholia, whenever the delirium appears to be uncomplicated by any organic lesion. The insane whose brains offer no deep-seated alteration ought not to be allowed to remain in constant repose and inertness, as this would infallibly destroy their intellect; and in such cases the moral treatment should not be confined to gentle emotions, which often produce but little or no effect. We must seek, from whatever quarter we can, other influences; all means are good provided they be powerful, the important point being to know the proper time and method of employing them. The physician of the insane must possess the courage and firmness of the surgeon. The instruments he is to employ are the passions and thoughts, and these he must be expert to wield. He must excite the patient to anger, if by anger he can create a diversion from his delirium; let him give him cause of complaint, if he think fit, against somebody, himself even: for a feeling strongly excited, and for a real motive, will often prove the best assistance that can be called to his aid.

"When," continues M. Leuret, "we would endeavour to relieve a person plunged in grief for the loss of a friend, we make every effort to console him, and divert his mind by directing it to other objects. And if he be pressed by hunger, if he be in want of work from which to gain a livelihood, if he be drawn into a lawsuit in which the care of his defence requires all his time, we see his grief soften according as his attention is the more powerfully and for the longer time diverted from the recollection of the friend he has lost. If necessary, then, be for your patient as tormenting as a lawsuit, as harassing as the fear of want; he will hate you for your worrying, but you will cure him.

"Pain forms a part of moral treatment; it has

the same importance for the insane as it has in the ordinary affairs of life, as it has in education; it is one of the motives for avoiding the bad, or seeking the good. The surest means of producing pain in the insane is the douche, and in such case is not employed either as a means of repression, or as a remedy, but as a means of fear. A person, for instance, under a delirious idea, thinks himself a king. We here see the principles on which the remedy is employed: to think that one is a king, while he is not, is a disease; the remedy for this disease is the douche and dashings of cold water; as long as the disease lasts we shall employ the remedy; as soon as the disease disappears, we shall discontinue the remedy. The patient who is placed in the alternative of being a great lord, or a great sufferer, or of ceasing to be a great lord, and of being no longer subjected to inconvenience, soon gives way. Hallucinations are to be combated in the same way; pain and permanent thwarting form the basis of the treatment. The douche is only one of the thousand means which the physician will suggest according to the tastes and particular ideas of each patient. When all the acts and manifestations arising from the disease are found to entail a thousand annoyances on the patient, and on the other hand, that all the determinations and acts in conformity with the wishes of the physician are rewarded with more liberty, and enjoyments varied according to the tastes and desires of each patient, habit will restore at length what reasoning had failed to do.

"The same is true as regards children, the results we have in view being the same. Of all means, occupation of the mind is the most sure, in breaking the persistence of dominant ideas. An educated insane person should be employed in teaching his companions to read, write, and cipher; he who knows nothing, has everything to learn; music, as a study, is a very valuable occupation. These different employments are more favourable even than manual labour, especially that of women, when it keeps them in too sedentary a state."

These principles are also often applicable in private practice, but their success is far greater in the large establishments, which always contain so large a number of the insane reputed incurable, and who are so only because they are allowed to become so. Abandoned by the world, their friends, and relations for 10, 15, 20 years, they have become reconciled from habit to their mode of life. If you propose to set them free, they don't seem to understand you; they are sure of being fed, clothed, and lodged, where they are, and they know well, if sent forth into the world again, they would be entirely destitute; besides, they have made up their minds to live, or to appear to live, with their delirium: it is so easy for them to appear irrational; they have only to give their brains full scope. Some melancholics and monomaniacs take a sort of pleasure in their sombre ideas and delirious conceptions; they always find some other patient madder than themselves to listen to them, and in this manner they establish for themselves a kind of influence, which they display by marking a place at table, the position of their bed, the use of a particular spoon, knife, or any trifle, which they magnify into an important mark of distinction. If they receive any assistance from their friends, they become doubly important in the eyes of those who had previously looked up to them. Other patients, whom isolation alone would restore to reason, continue to utter nonsense because they are mad, or incurable, or because they are with incurable madmen. Of this they are well aware, and they deduce from their very position an additional motive for being irrational: habit, slothfulness, the fear of being discharged, and of being obliged to work for a livelihood, all these feelings enter more than we imagine into the calculations of those persons, who seem at first bluish to be doomed to incurability.

Yet it is on such patients that moral treatment, even after many years, produces the most salutary effects. We must not be afraid of subjecting



them to trials of the rudest kind in order to force them to become rational once more, and to labour usefully; it will be sufficient, in numerous cases, merely to send them back to the world against their wills. When I was at the Salpêtrière, I was much struck with the repugnance of many of the quiet patients to return to the world, and recover their liberty; being convinced that this depended chiefly on their indolence and sluggishness, I proposed to M. Pariset and the administrator, to make an experiment on a large scale. I gave them a list of 72 patients, selected amongst those who had been reputed incurable for several years; they were discharged, and out of the whole number, three only came back; all the rest having found places and means of livelihood. This remarkable and gratifying event occurred in 1835, and we have a right to conclude from it, that moral treatment must have a ready influence on such patients, and effect cures which appear surprising when the cases are properly chosen.

All physicians have felt the necessity of physical occupations, of manual labour, both as a diversion and as a means of usefulness, indispensable to the physical and moral well being of the insane. Such occupations are to be adapted to the former habits, strength, and position of each patient. In public establishments, they form a large part of the hygienic treatment; in private ones, they are limited to the social amusements of the rich: walking, gymnastics, reading, the study of an instrument, of an art, natural philosophy, chemistry, &c. The choice and duration of such occupations must be determined by the physician.

#### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 125.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

Puerperal insanity occurs after parturition, and is generally observed in those cases where there has been considerable exhaustion; and in this respect it somewhat resembles delirium tremens. Puerperal mania also arises from protracted lactation, and in this example we also observe that the powers are generally prostrated. These cases ought not to be sent to a madhouse, it being very rare for puerperal mania to continue long, especially when early and properly treated; but if after a month the symptoms still continue, the pulse being very quick, change of residence and removal from home should not be generally longer postponed.

It has been observed that more unmarried females die from puerperal mania, than when married; and this may easily be accounted for, as the mental excitement, the shame, the remorse, the despair, continue to weigh down in deep affliction the mental powers of these unhappy females.

When a patient is in her own comfortable home, she should not be removed, even if violent; but, at the same time, the infant, the husband, and the friends, whenever they occasion the least uneasiness or excitement, must be kept out of sight. Strangers always, in such cases, command more authority, respect, and obedience; the great thing is to obtain an honest, confidential, and experienced nurse, who should always be cautioned by the medical man in attendance, never to leave her patient for one moment—the room must never be left.

Where there has been physical disturbance, and where there is, consequently, debility of mind, such a person, when exposed to any exciting cause, whether it be political, theatrical, or domestic, is very apt to become insane upon that particular circumstance or opinion which gave immediate rise to the error of mind: thus a person suddenly hearing of the death of her dearest friend imagines she sees him constantly, or holds some erroneous impression or hallucination concerning him; or another hears of his loss of fortune or rank, he thereupon becoming insane, either is always repining at his tremendous losses, or he imagines that he is amassing wealth by supernatural powers, or that he represents a station higher than other mortals. Thus the

character or type of the delusions is often dependent upon, and bears relation to, the exciting cause.

Now, is it to be wondered at that religious opinions sometimes give rise to mental error, and constitute the hallucination? I firmly believe that most of these religious monomaniacs would have become insane had they never heard of those particular points which form their hallucinations; by which I mean, that such persons, often hereditarily weak, would, under one circumstance, represent our Saviour or the Virgin; under another, Mahomet or Vishnu; or again, one fond of military tactics might fancy himself an Alexander or a Napoleon; while another, thirsting for theatrical representation, and powerfully influenced by Shakspeare, imagines himself a Hamlet, or some other well-drawn character. So, during the period of the coronation of Buonaparte, there were great numbers of kings, queens, and generals; and when the Pope entered Paris the number of martyrs and saints greatly increased; thus proving, where there is the predisposition, it is generally the exciting cause at the time which forms the object of delusion or the form of hallucination: so that, most probably, had not the Pope visited France, there would have been fewer supposed martyrs and saints, and had Napoleon lived a less conspicuous life, we should never have heard of his numerous prototypes.

It is because there are monomaniacs holding erroneous religious views that so much prejudice seems to exist upon this subject; but when we reflect that of the educated classes, the instructions and ordinances of religion, in some shape or other, are more prevalent and universal, and are more frequently presented to our notice, than any other or all other systems put together, we cannot but feel that religious views and opinions do not exercise that morbid tendency which some have stated, and that the proportion of such lunatics bears nothing like an equal ratio to those insane upon other points, notwithstanding its vast and powerful, and oft-presented influence; while the absence of religion, and consequently of moral discipline and restraint, has produced a thousand-fold more injurious consequences. It is very true that, under such circumstances, there are fewer cases of *religious insanity*, and why? Because this subject, never being presented to the senses, is not likely to be thought of or appreciated intuitively; but, in the absence of religious restraint, the depravity of the moral habits and sentiments is such that insanity fearfully increases; and for confirmation turn to France, and there will be found, as detailed by Esquirol, that during the state of political discontent, when that kingdom was convulsed, and even the very form of religion was totally subverted, the increase of insanity was fearful!

It has been mentioned by Dr. Burrows that he did not recollect a single instance of religious insanity occurring, where the individual had remained steadfast to his early opinions. This is easily accounted for: such a person, either as the result of *conscience* or of *disease*, is led to *doubt*, opposite and conflicting opinions continually assail him, he is carrying on a mental controversy, he hesitates and wavers, then again believes, until this dreadful uncertainty harasses him night and day; the very points he would avoid continually force themselves upon him—he cannot shake them off; he neither sleeps nor eats; the system, now sympathising with the mind, becomes irritable and excited, and thus doubly aggravates the mischief; so that what in the first instance was merely a metaphysical error, has now led to a physical defect; that which was originally a mere mental inaccuracy, delusion, or deception, has now produced organic disease.

Amongst Roman Catholics, religious insanity is very rare, which may be accounted for not only from their general ignorance upon this particular subject, but from the implicit *faith* they place in the doctrines and tenets of their own Church. The priests themselves are, however, by no means exempt, but, as a class, yield more than their respective ratio in proportion to their numbers, which probably arises from the unbelief known to exist amongst them, as well as from other causes which need not now be entered upon.

Amongst Quakers, where enthusiasm is unknown, it is not to be expected that they would become ex-

cited upon religious subjects; and their contentment, together with a self-approving conscience, seldom allows them to become depressed or melancholic on any points connected with religion.

I quite agree with Mr. Bakewell, that "the visionary fervours of devotion, which have been stated as the causes of insanity, are frequently the first effects of it."

It is seldom useful to argue with a religious maniac, but there are times when a word judiciously used may be of the happiest effect; to contradict them is only to excite their worst symptoms, and it will seldom be advisable to refer to their particular point of error, unless introduced by the patient himself.

Exercise, constant occupation, reading history, travels, anything which amuses and draws off the attention of a patient from himself and from his error, form the rational mode of treating these cases.

Persons afflicted with religious insanity sometimes require watching, as they have occasionally become dangerous, hearing whisperings which tell them to take the lives of their infants to save them from eternal punishment. Suicide is not often a consequence of religious insanity, and indeed, even when the desire for self-destruction has existed, it has been checked by the moral restraint resulting from a religious education; and even a single passage of Scripture has been sufficient to overcome this dangerous and destructive possession.

The regular attendance in chapel to hear the daily prayers, morning and evening, has often been found to be of the greatest service in tranquillizing the patients, and in obtaining moral influence over them; and it is extraordinary, in this instance, how great is the power of imitation and example. Few lunatics, however restless and noisy elsewhere, dare to behave indecorously during the period of divine worship; and if any do become troublesome—as Dr. Yellowly, of the Norwich Hospital, says, who was, I believe, one of the first to introduce this rational privilege for the patients—if any do become troublesome, they are immediately checked by the others. Public worship is now found to be most consolatory even to those erring and much distressed on some religious points, entirely disproving a prejudiced opinion which formerly prevailed on this subject. Of course, in such cases, the greatest care would be taken in no possible way to touch upon the point of error.

*Moral Insanity.*—In moral insanity there is no illusion, no hallucination; but there is an absence of self-control, with inordinate propensities, the intellectual faculties remaining unimpaired. As Dr. Prichard has so ably described this particular form of insanity, I shall quote his own words; he says:—

"Moral insanity or madness consists in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, and moral dispositions, without any notable lesion of the intellect or knowing and reasoning faculties, and particularly without any maniacal hallucination.

"There are many individuals living at large and not entirely separated from society, who are affected, in a certain degree, with this modification of insanity. They are reputed persons of a singular, wayward, and eccentric character. An attentive observer will often recognise something remarkable in their manners and habits, which may lead him to entertain doubts as to their entire sanity, and circumstances are sometimes discovered on inquiry, which add strength to this supposition. In many instances it has been found that an hereditary tendency to madness has existed in the family, or that several of the relatives of the person affected have laboured under other diseases of the brain. The individual himself has been discovered to have suffered, in a former period of life, an attack of madness of a decided character. His temper and disposition are found to have undergone a change; to be not what they were previously to a certain time; he has become an altered man, and the difference has, perhaps, been noted from the period when he sustained some reverse of fortune, which deeply affected him; or the loss of some beloved relative. In other instances an alteration in the character of the individual has ensued immediately



on some severe shock which his bodily constitution has undergone: this has been either a disorder affecting the head, a slight attack of paralysis, or some febrile or inflammatory complaint which has produced a perceptible change in the habitual state of his constitution. In some cases the alteration in temper and habits has been gradual and imperceptible, and it seems only to have consisted in an exaltation and increase of peculiarities which were always more or less natural and habitual."

Moral insanity is what Pinel calls, "*manie sans délire*," or madness without delirium or hallucination; there being an absence of self-control, and a depraved state of the feelings and affections.

It is under this form of insanity that there is in some an irresistible propensity to murder, in others to burn down houses or buildings, and, under the same influence, honest persons are sometimes tempted to steal. There is a moral perversity in those persons who feel inclined to break china, dash down girandoles, or crack any small objects of *vertu*; this wish for mischief is exceedingly common, especially in young persons, but self-control enables them generally to resist such temptations. Many must have heard young persons say, "Oh how I wish to break that china bowl." "How I should like to dash that china cup." This feeling is not natural, and may, perhaps, be regarded as one of the slightest indications of perverted or morbid feeling. In all such cases great care should be taken to check such propensities, and to impress upon them the value of self-possession, and they should be taught to control fancies or whims, which, though at present ridiculous, may hereafter become most disastrous; such persons should be encouraged to act from reason and not from impulse.

Some persons utter words they do not wish, being unable to control or direct them, yet knowing them not to be correct. The same has occurred in writing: thus, a gentleman in drawing a check, has begun correctly enough, but in continuing has put down something totally irrelevant to the subject—the memory is the faculty at fault in such cases. Torpid persons often forget what they are talking about even in the midst of conversation; and a more or less complete absence of thought is occasionally produced by a too protracted mental effort; and it was probably from this cause that John Hunter could not, for half an hour, remember the house or the street in which he then was. The same effect is produced when any of the senses are over-wearied: thus, Dr. Wollaston, after too closely employing his eyesight for a protracted period, in walking out, passed a shop with the name JOHNSON painted over the door, but the doctor was unable to perceive more than . . . SON.

It often happens that a man either gradually or more suddenly becomes very troublesome to his family: he is always finding fault, he begins to dislike his best friends, he wastes his property, is always contemplating new schemes, often far beyond his means, there being most extravagant notions. There is, however, no particular illusion or hallucination, and, if such a person be brought before a jury, he will answer questions most rationally; but, however capable of responding to such queries, and however calm and collected when under the surveillance of those whom he respects, and before whom he would feel ashamed to expose himself, yet in his family his incompetency is hourly evident, and he proves it by very soon verifying their prediction, in involving them with himself in a common ruin; as Dr. Hitch says, "these patients are insane in conduct and not in ideas."

Now, what should be done in a case where every one but the individual himself sees that his conduct is so strangely altered, that, though before a cautious man, he is now inextricably imprudent?

However unreasonable the actions of a person suffering under moral mania, he is always prepared to justify them. Moral madness is generally ushered in by absurdities which become more and more manifest. Thus a merchant who has previously been remarkably prudent, suddenly engages in most unjustifiable speculations, increases his establishment, becomes very turbulent, and engages in acts and conversation from which but recently he would have revolted; probably, from his in-

cantion, in a few weeks or months he is involved in bankruptcy, when this additional shock completely overturns his already weakened mind, and he either at once commits suicide or he becomes raving mad. His habits and manners first altered, his affections then became changed, his passions subsequently were excited.

There is no effectual way of restraining a man who is so reckless, inconsistent, and imprudent; he may be examined by a jury, who, finding him readily answering the various queries put to him, are satisfied, and pronounce him sane. Now, it should never be forgotten, that some men reason well, but act inconsistently, while others, who are most prudent in every action, may be very deficient in reason; therefore a jury should bear these differences in mind, and duly estimate their importance. The two points necessary to be decided are—*First*, is the alleged lunatic fit to be trusted to the care of himself? *Secondly*, is he fit and capable to manage his own affairs? for I do not accord with those who place the property first, and the person after.

It should not be forgotten how hard a case it is for a family to find their money squandered, possibly on most worthless objects, and to see a parent who has always been characterized for prudence, sagacity, and moral probity, sinking deeper and deeper into drunkenness and debauchery; his feelings alienated, his judgment impaired, his reason daily becoming less. Surely here some restraint is necessary; the oft-repeated gratifications of the will are daily expending his vital energies, and, to protect himself and his fortune, some efficient check should be interposed. We cannot believe such persons to be responsible for their actions; the very *change* which has occurred, of itself is almost sufficient to indicate its cause; and therefore, if not responsible, this very irresponsibility indicates incompetency.

There is occasionally a most remarkable change noticed in old men, and, as Dr. Burrows has stated, "the pious become impious, the liberal penurious, the sober drunken"—such persons are always getting into mischief, and, if without friends, are exposed to every sort of wicked imposition. In this senile insanity, they are remarkably perverse and passionate, often becoming impious, imprudent, discontented, and miserable.

Directly opposed to the extravagant habits so often observed in the insane, we occasionally see a miserable, misanthropic miser, whose habits of accumulation are mixed up with so much secrecy, suspicion, and eccentricity as to constitute a species of mental derangement.

Where such a person is without near relations, however niggardly in his habits, however he debars himself—feeding perhaps upon a scanty crust, or depending upon carrion which even birds have rejected—yet, inasmuch as this only affects himself, and does no injury to his neighbours, no one has any right to interfere with him; but should he be a parent, and neglects the education of his children, or withholds proper sustenance from them and from his wife, such a person must be restrained from keeping back that which is just and necessary; and, if such habits are directly opposed to those he exhibited in his former life, and more especially previously to his marriage, it would indeed be a flagrant omission of duty to allow a wife to be subjected to the freaks and annoyances of such men as Elwes or Daneer. Fortunately such cases are rare; and, even when they do occur, the individual has generally happily been too misogamistic in his views, as to involve the expenses of any additional encumbrance.

Misanthropic monomania may often be traced to a faulty education; there is essentially an overweening love of *self*, almost invariably combined with self-approbation and self-esteem.

The irresistible inclination to partake of intoxicating liquors must be considered as a species of moral insanity, and but too frequently ushers in other forms of that disease. Many of these drunkards feel deeply the degraded and disgusting position in which they place themselves, but are unable to exert sufficient self-control to withstand the stimulating draught; as the liquor circulates, excitement increases, and not unfrequently regular

paroxysms of mania occur, which at first pass away as the patient becomes sober.

This is a form of insanity to which butlers are becoming much exposed, and if from loss of place, or any other circumstance, the intoxicating draught is withheld, depression follows, and they then often commit suicide. I believe that more butlers have recently in London terminated their existence by their own hands, than any other class of individuals.

Some persons always attempt suicide on becoming intoxicated; whenever this is the case it is imperative that proper precautions be taken to prevent such an individual from becoming inebriated; and it should be fully borne in mind, that occasionally, nothing but being placed entirely out of the way of temptation will prevent some persons from becoming drunk. It does sometimes happen that such individuals will themselves request to be placed under control.

A gentleman, previously correct in his habits, begins to frequent a pothouse, drinks, and becomes excited, mad—he now spouts, and delights the cabaret—he fights over battles in which he had never been engaged, and details extravagant narratives which have arisen only in his own imagination; he perhaps then slumbers where he fell, and his anxious relatives at length find him in this degraded position. This scene is oft repeated, until it terminates in delirium tremens, or settles down in imbecility or dementia.

Another form of moral insanity is the hysterical and sexual. Erotomania is a metaphysical disorder, the sentiments being affected; while nymphomania and satyriasis arise from physical causes, there is generally local irritation, and an ardent sexual impetus which exhausts the sufferer, and arises from excessive organic irritation. Erotomania, on the contrary, is found in the virtuous and disappointed; there is often the most fervent devotion and attachment, possibly to a concealed object, and the intensity of the feeling is such that often the finest form is gradually reduced to the merest shadow, when, if consumption does not close the scene, this excess of passion, this erotomania, gradually leads to confirmed mania or dementia.

Erotomania is not unfrequently cured when the object which induced it can be attained, and hence, occasionally, a happy marriage has been of the best service. It is of the greatest consequence to ascertain the moral cause, and if possible to act upon such information; when this is impracticable, removal from the exciting cause, with change of air and travelling, will sometimes prove of use.

The gratification of sexual desire usually tends to aggravate the symptoms of most lunatics, and, as a general rule, a strict interdict must be laid upon any such indiscretion. Still there are exceptions, and much judgment is necessary in deciding on such delicate cases; there being other considerations than those merely affecting the patient himself, which must be duly weighed and estimated by the physician.

Dr. Mason Good mentions the case of a clergyman who became raving mad in consequence of genital irritation. He recovered in six months, and soon after, finding the same symptoms returning which had ushered in the previous attack, and this clergyman, himself, having spontaneously referred his irritation to the right cause, married his servant, and was for upwards of twenty years most happily united. In a confidential statement to the doctor, soon after his marriage, he gave as his reasons for this apparent indiscretion, the necessity of marriage, and the impossibility of being admitted into any respectable family when having just emerged from a madhouse. His friends, however, thought this marriage only a greater proof of his madness. Now, suppose him to have had a title, or a large fortune, these friends might possibly have goaded him into madness, by a commission, by confinement, and by restraint; but he providentially escaped this, and lived in unusual happiness with his wife and children for upwards of twenty years!

One of the earliest indications of insanity attacking women is the change of ideas, sentiments, and actions. A female, hitherto modest and retiring,



becomes impetuous, loquacious, and indecent in her actions: or, if still possessing some control, the wanton glance alone expresses the inward sentiment: friends are now suspected, relations are reviled, and if no one has the power to interfere, and proper means are not resorted to for checking such excitement, every symptom becomes aggravated, and not a few who are deprived of parents, fall into snares which are horrible even to contemplate. Although drunkenness generally is seen in man, yet females, under this irritation, not unfrequently aggravate their malady by plunging into intemperance; and if, at an early period, such causes are not removed, and if by therapeutic, general, and moral means, the excitement is not calmed, the symptoms become chronic, and these cases soon become hopeless.

In those cases where the sexual passions are so highly irritated and excited, it is often found, that from early youth all moral control has been disregarded, a very afflicting proof of which has recently occurred in the person of a young lady whom I had formerly known, who possessed considerable personal attractions, and who was unfortunately in early life deprived of both her parents, with a handsome fortune at her disposal. She was always eccentric, and, being brought up amongst a gay and fashionable circle, often forgot the prescribed bounds of discretion. She selected a young man of good family as her lover, followed him to the metropolis, and, with a promise of marriage, was seduced; she gave birth to a daughter, but not before she had been deserted by her heartless injurer and deceiver. Her eccentricity now developed itself in the worst forms, and she, for a period of four years, admitted many who sought her favours, and also accelerated her death by drinking deeply. Although having possessed an ample fortune, and reared in the lap of luxury, she died a beggar in a public hospital, and her name was registered, and she was buried, as a common prostitute.

Now, this poor girl had been lively, amiable, but possessed no self-control; there was evidently something eccentric; but had she met a man of moral worth, who, as her husband, could have properly directed her judgment, and judiciously tempered her character, instead of having been so grossly deceived and injured, and exposed to scenes of such temptation and excitement, she might have been alive at this moment, and have adorned the society in which she was placed. Some of her friends had her removed to a private lunatic asylum, soon after she entered her most disgraceful haunts, but she escaped, and again reached the metropolis, where she plunged into that fatal vortex which has overwhelmed thousands.

Over-excitement of itself will produce moral insanity. Dr. Prichard mentions a very interesting case, of a successful corn-dealer, which is most instructive. It commenced by excitement, then a change in temper and habits, with prostration of the natural feelings and affections, loss of moral rectitude and self-control. Twelve months had elapsed before he was put under treatment, during which time he had been getting worse and worse; when taken, he had been wandering about the country, subsisting by the meanest artifices; he was put under treatment, and in three months was cured.

Those other characteristics of moral insanity which exhibit themselves in committing criminal acts will be fully considered hereafter, when treating on criminal lunatics.

*Dementia.*—Unfortunately the term dementia has been employed to describe two very opposite states of mental disease; but, in the present day, it is almost universally allowed to represent a species of imbecility, fatuity, or idiocy, as held by Esquirol, Georget, Prichard, and most modern authorities.

There is no difficulty in detecting dementia: the faculties are destroyed; there is an absence of reasoning, there being neither imagination, thought, wishes, nor ideas; and there is rarely any opposition, the demented individual being usually easily guided and directed.

It may be primary, as not unfrequently occurs in old age in debilitated constitutions, but is gene-

rally secondary, as when caused by protracted mania or monomania, or by apoplexy, epilepsy, or organic disease of the brain; it is in such cases termed *dementia accidentalis*, the *dementia naturalis*, legally signifying idiocy.

Dr. Prichard has very accurately described *senile dementia*, and has divided it into four stages:—

1. *Forgetfulness.* Where an old person perceives, but immediately forgets.

2. *Incoherence.* Where there is a total loss of reasoning, the reply being forgotten before capable of answering; while talking, such persons suddenly speak of something totally irrelevant to the subject.

3. *Incomprehension.* Where nothing can be understood, however simple, the physical powers still being good.

4. *Inappetency.* Where even the animal instincts are lost.

In dementia there is a very impaired memory; the person is usually calm and collected, but is sometimes violent; the eyes are dull, sunken, and inexpressive, and there is a great love of chattering; the whole time is continuously occupied with disconnected incoherencies having no relation to each other, there being the most rapid change of thoughts and opinions; in the mildest forms, however, the patient partially understands, and then becomes bewildered.

These cases of dementia are very common, and constitute more than half the number of lunatics confined in our asylums, of whom the greater proportion are women, it being observed that insanity more frequently lapses into dementia in women than in men.

The prognosis in this form of insanity is most unfavourable, especially where the powers of the mind gradually diminish, there being more chance of recovery when dementia has resulted from a sudden shock or fright. When general paralysis occurs, there is little or no hope, as this arises either from organic disease of the brain or its membranes, or from the general powers having been broken down by intemperance and debauchery.

Imbecility, fatuity, and idiocy may often arise from a connate tendency, being inherited; and this is caused by whatever debilitates the parents, as sexual weakness, and irregularities and excesses of every kind. It has been frequently observed to arise in those cases where the mother has been frightened when pregnant, especially during the latter months of gestation; and injuries to the head during labour have often given rise to mental weakness. It is, also, sometimes caused, especially in early infancy, by blows or falls on the head, diseases of the brain, convulsions, teething, the exanthemata, immoral and precocious desires, phthisis, and mesenteric disease.

There is a great difference between dementia and idiocy: the *connate* imbecile always appears childlike; he never has improved his intellect; he has his passions, but possesses neither memory, judgment, nor comparison; whereas, in general or acquired dementia, there usually remains the individual traits of character, which have been acquired, although one or more of the faculties have become diseased. It should never be forgotten that while dementia frequently resembles idiocy, with a complete loss of mental power, it is sometimes removed by proper treatment, and, therefore, great care should be taken to diagnose correctly in these difficult cases.

An idiot cannot reason at all, his mental powers are impaired; and this constitutes the difference between idiocy and insanity, in the latter there being often very great mental activity without correct judgment; the judgment not being sound.

An idiot, or natural fool, is one that hath no understanding from his nativity, and therefore is by law presumed as never likely to obtain any. According to Dr. Johnson, an idiot is a fool, a natural, a changeling, one without the power of reason.

An idiot is described as one that hath no understanding from his nativity. 1 *Black. Com.*, p. 302: "Fatui naturales," which were of nonsane memory, a *nativitate*. Coke. *Littleton*, p. 247: "And he that shall be said to be a sot and idiot from his birth,

is such a person who cannot count or number 20d., tell who was his father or mother, nor how old he is, so that it may appear that he hath no understanding of reason, what shall be for his profit or what for his loss; but if he be able to beget either son or daughter, he is no fool natural."

Idiocy is a defect of the intellectual powers, and fatuity resembles idiocy, only fatuity may happen at any age after infancy; whereas idiocy is so called when occurring from the birth, the faculties or the intellect never having become developed. Dementia or fatuity may be sudden in its attack, and, having continued many years, may be entirely recovered from. It is often caused by fright, by bad and even by good news, especially when unexpected and sudden. This was instanced by a young man who saw his brother shot down by a cannon ball, at his side, when on the battle-field: he immediately became fatuous. There have recently been several examples, both in this country and in France, where persons have at once fallen into a fatuous state, on hearing of unexpected fortunes being left them; and it is a very extraordinary fact that good news, when improperly communicated, is far more likely to injure the mind than a sudden reverse of fortune.

Fatuity is characterized by *inertness* of the intellectual powers, perception and memory being chiefly at fault, the mind being *incapable of receiving impressions*; and this distinguishes fatuity from mania, delirium, and insanity, as in these the mind receives *false impressions*, the imagination and the feelings being unduly excited. In the worst forms of fatuity there is an almost total loss of consciousness, so that hunger, thirst, and the calls of nature are totally disregarded.

It is only in the earlier stages of dementia or fatuity, that a legal inquiry for civil purposes can be necessary, just where the memory is becoming traitorous, and where, when facts are supplied, there is a difficulty in perceiving and reasoning upon them, even though reminded of them; but, as disease advances, the tottering gait, the hesitating and confused manner, the faltering and sluggish, or the rapid and incoherent, speech; the vacant look, at once show the utter imbecility and incompetency of the apathetic or debilitated individual.

(To be continued.)

## ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARKWICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

### ON THE DIGESTION OF FECULENT AND SACCHARINE MATTERS, AND ON THE PART PERFORMED BY THEM IN NUTRITION.\*

Notwithstanding the beautiful researches of MM. Leuret and Lassaigne, and the great labours of Gmelin and Tiedemann, several causes, which we are now about to detail, have contributed to destroy the clearness and the precision of the researches that have been undertaken for the purpose of appreciating the part performed by feculent matters in digestion and nutrition. At the head of these we ought to place the idea, generally admitted previous to our investigations, that solid food was transformed first into chyme, and then into chyle. It was thought that, to find the solution to the problem of the digestion of feculents, it was merely necessary to analyze the liquid contained in the thoracic duct. All our observations concur in proving that the lacteals only take up the fatty matters in the intestines, and, contrary to the opinion of every physiologist, merely play this secondary part. From this it may be readily understood how the preconceived ideas that have been put forth, relative to the absorption of the alimentary matters, have prevented the truth from appearing in all its simplicity.

\* A memoir by MM. Bouchardat and Sandras, read before the Academy of Sciences, January 20, 1845.



It must be acknowledged also that science in the present day has at her disposal more delicate means of investigation than our predecessors were able to employ. The microscopic history of feculent substances has become completed. We are in possession of extremely sensitive means for discovering with certainty traces of the different sugars. We may also, by the aid of M. Biot's apparatus, readily perceive and follow the slightest modifications of these substances.

In our first researches on the digestion of feculent matters we had, like many of our predecessors, the unfortunate idea of choosing exclusively, as subjects for our experiments, those animals, as dogs for instance, for which feculents do not constitute the normal food. Unforeseen errors may be the result of this exceptional diet; and, now that we are more enlightened, we have performed our experiments on herbivorous or granivorous animals.

We will first detail our researches on the digestion of the saccharine matters, and then afterwards proceed to the feculent matters. Our exposition will thus be more logical and more easy.

#### ON THE DIGESTION OF SACCHARINE MATTERS.

##### —DIET CONSISTING EXCLUSIVELY OF CANE SUGAR IN EXCESS.

1. A middling-size dog was fed for four days on cane sugar. He eat more than 200 grammes in the solid state, and more than 100 grammes dissolved in water. He was killed on the fourth day by dividing the medulla oblongata, three hours after having ingested 100 grammes of sugar, and about 250 grammes of water.

The stomach contained 25 grammes of a sweetish, light-yellow coloured, syrupy fluid, which reddened litmus paper. This fluid was diluted with 25 grammes of water, and filtered, and then examined by means of M. Biot's apparatus in a tube of 300 millimètres; it presented a slight deviation to the right of  $+2^\circ$ ; by the addition of one gramme of hydrochloric acid, the rotation after twenty-four hours took place towards the left; it had become  $-3^\circ 6'$ . One portion of the liquid of the stomach yielded protoxide of copper when boiled with Frommherz's reagent. These facts convinced us that one portion of the cane sugar still existed in an unaltered state in the stomach, and that another portion had been modified. We also ascertained that in the sweet fluid contained in the stomach, lactic acid, the chlorides of sodium and ammonium, the acid phosphate of lime, and mucus were present.

The upper third of the small intestines contained a thicker, greyish-white coloured, mucous pap, which reddened litmus paper. This pap contained some cane sugar in an unaltered form, and some modified sugar.

The lower two thirds of the small intestines were filled by a thick mucous pap of a darker colour, containing traces of unaltered cane sugar, and of modified sugar. This pap also reddened litmus paper.

The large intestines contained some still darker coloured matter of a firmer consistence, but which had no reaction, and in which there existed only traces of modified sugar.

Chyle taken from the thoracic duct.—The chyle was very small in quantity, transparent, and of a rose colour. It separated into a fibrinous clot which floated on a limpid serum; and restored the blue colour of reddened litmus paper. Diluted with three times its weight of water, and boiled, it became muddy, and, on being filtered and treated by Frommherz's process, showed the presence of traces of modified sugar.

Another portion, slightly acidulated with tartaric acid and mixed with washed yeast, yielded a few bubbles of carbonic acid gas.

Blood—(a mixture of arterial and venous blood).—150 grammes of blood were diluted with twice their weight of water, then boiled, and filtered after coagulation. The reddish liquid thus obtained was strongly acidulated with sulphuric acid, and introduced into a glass retort, care being taken not to wet the borders; the retort was only about one-fifth full. An acid liquid was then dis-

tilled over without carrying the fluid to the boiling point. To one portion of this liquid some nitrate of silver was added, when a slight precipitate took place of chloride of silver mixed with another salt of silver, which became reduced with the greatest facility. Another portion of the distilled liquid was mixed with a saturated solution of bichloride of mercury. By heating, we obtained a trace of reduced proto-chloride of mercury. From these two characters we were led to imagine that the product of distillation contained traces of formic acid. The liquid remaining in the retort, on being filtered, saturated with potash, and boiled with Frommherz's reagent, gave the reaction of modified sugar.

Urine.—A precipitate was thrown down from it by a few drops of basic acetate of lead, and then mixed with Frommherz's reagent, when it was found to contain a very small quantity of modified sugar. The presence of sugar in the urine of dogs fed exclusively on this substance has already been ascertained by MM. Leuret and Lassaigne.

2. A dog eat in the morning a quantity of soup containing 250 grammes of cane sugar. Three hours after the meal a catheter was introduced; the urine that was drawn off, on being treated as above described, showed traces of modified sugar, but the proportion was extremely small. The 51 grammes of urine scarcely contained 1 decigramme of sugar.

3. A moderate-sized wolf-dog swallowed in the morning, after fasting twenty-four hours, the following mixture:—sugar 100 grammes, water 50, broth 150, saffron 1, prussiate of potash 0.50; and was killed an hour and a quarter afterwards by dividing the medulla oblongata. Fifteen grammes of urine were collected, 160 grammes of blood, 8 grammes of chyle, 11 of bile, and the whole of the intestinal canal from the œsophagus to the anus. Ligatures were applied in order to separate the principal parts of this canal.

The stomach was healthy and contained about 280 grammes of a slightly mucous, greenish-yellow liquid, which reddened litmus paper strongly. Its density was 1.046 at the temperature of 15 deg. centig. By adding to it a persalt of iron, an abundant blue precipitate became formed. Examined with the naked eye, with the polarizing apparatus, the power was  $+24^\circ$  in a tube of 300mm. Frommherz's reagent indicated the presence, in this liquid, of modified sugar.

The duodenum contained 25 grammes of a viscid, yellowish liquid having an acid reaction, which floated on some whitish mucous flakes. This liquid became troubled by heat; and by the addition of nitric acid or bichloride of mercury, we also ascertained the presence of prussiate of potash, saffron, and modified sugar.

In the remainder of the small intestines there was a brownish yellow pap, with an acid reaction, the whole of which we found, by fermentation and Frommherz's reagent, to contain modified and modifiable sugar.

The large intestines contained thicker and deeper-coloured matters, having also, contrary to what is observed in the generality of cases in dogs, an acid reaction. The presence of sugar and of prussiate of potash was detected in these matters.

Before we enter on the examination of the chyle, the blood, the bile, and the urine, let us first devote a short time to the matters contained in the digestive canal. We must bear in mind that the animal had been kept for twenty-four hours without food, and that he had taken only 300 grammes of sweet drink; and yet, although he was not killed before an hour and a quarter after his meal, his stomach contained 280 grammes of alimentary liquid; and the remainder of the intestinal canal, matters in as great abundance as in dogs who have not fasted. We may mention, likewise, that traces of the fluid ingested were found to be present in the stomach, and even as far down as the extremity of the rectum.

These facts prove that the absorption of the alimentary liquid contained in the intestinal canal was as slow as it was limited. Other experiments, which we shall afterwards relate, have satisfied us

that the ordinary potations are much more rapidly absorbed. But there is one circumstance which deserves attention: the liquid ingested contained in the 300 grammes, 100 grammes of sugar; and we learn, from the admirable researches of M. Dutrochet, that a fluid so rich in sugar was not in a favourable condition for being absorbed. The two currents which took place were nearly equal; in this case there was at least as much liquid secreted or exhaled in the digestive canal, as there was absorbed.

Besides the colouring matter of the saffron, the prussiate of potash, the modified and unaltered sugar, the whole of the digestive apparatus, from the stomach to the rectum, contained lactic acid in a free state (a).

Chyle.—We extracted from the thoracic duct 7.3 grammes of chyle of an opaline white colour; no shade which the saffronous liquid could communicate was observed. We ascertained that it contained no trace of prussiate of potash. It restored the blue colour of reddened litmus paper, and coagulated spontaneously into an opaline trembling jelly, upon which floated a small fibrinous clot, marked by rose coloured striæ; when boiled with twice its weight of water, it coagulated but imperfectly. The filtered liquor, which was always milky, was divided into two portions. To one, washed yeast was added, and no alcoholic fermentation was observed to take place. With the other, a few drops of Frommherz's reagent was mixed, when, by boiling, a very slight reduction was obtained; care was taken to previously boil it with a drop of hydrochloric acid, which was saturated by the potash. From these facts it must be concluded, that if the chyle contained sugar, it must have been in extremely small proportion.

The chyle contained, besides, traces of fat, the albumen, and the salts found in the lymph.

Blood.—The serum presented a very slight yellow tinge. It was mixed with twice its weight of water and coagulated by heat. The filtered liquid was acidulated with sulphuric acid and distilled. A quart of distilled fluid was collected, which did not redden litmus paper. The liquid remaining in the retort was filtered, and then mixed with Frommherz's reagent after having been saturated. By boiling, it showed traces of modified sugar.

Bile.—The gall bladder contained 6.5 grammes of a dark, brownish-yellow bile, having a strongly alkaline reaction; a salt of iron threw down an abundant greenish-blue precipitate. It was then distilled with twice its weight of water, its free alkali saturated with a few drops of weak sulphuric acid added in excess, which coloured it green, and filtered. Half of this liquid was saturated with soda and heated with Frommherz's reagent, when a considerable reduction took place. The other half, on being mixed with washed yeast, gave off carbonic acid gas. The bile, therefore, contained, besides the ordinary matters, prussiate of potash and modified sugar.

Urine.—This liquid was taken from the bladder after death. It was of a dark yellow colour, had a strong odour, contained urea, a larger proportion of the alkaline phosphates than natural in dogs, and traces of prussiate of potash, but was free from sugar.

In the foregoing observations there are some

(a) We obtained lactate of zinc by known procedures, and upon which we shall enter more into detail by-and-by; still we must state that the excess of sugar which inconvenienced us was previously destroyed by the frequently washed yeast. It may be objected, perhaps, that lactic acid became developed during this fermentation. This objection is founded; but we reply—1, that the proportion of lactic acid was greater than that furnished by so limited an alcoholic fermentation; 2, the whole of the intestinal canal is acid, which is not the case with dogs fed on other food; 3, sugar in solution, and in contact with membranes, always yields lactic acid, as has been observed by M. Frémy.



points worthy of notice. For instance, we find the sugar in the form of a concentrated solution to be with difficulty absorbed; and, if we follow it after its absorption, we discover it in considerable quantity in the bile; evident indications of its presence in the blood; and in the chyle, which contained neither prussiate of potash nor the colouring matter of the saffron, with which the sugar was accompanied in its solution, but very equivocal traces of it; while the urine contained no saccharine matter whatever.

Before drawing any conclusions from these facts, let us continue the narrative of our experiments and observations.

A moderate-size dog eat in the morning some soup, composed of—sugar 50 grammes, broth 200 grammes, bread 20, saffron and prussiate of potash, of each one gramme. Three hours afterwards he was killed by injecting 5 centigrammes of digitaline into his veins; he died three minutes after the injection, having previously vomited a portion of the ingested liquid.

The stomach contained only 12 grammes of a thick mucous substance, of a yellowish-white colour and an acid reaction, from which the persulphate of iron threw down an abundant blue precipitate. It was diluted with three times its weight of water, and filtered through washed animal charcoal. The limpid liquid contained sugar in an unaltered and modified state, lactic acid, phosphate of lime, and the chlorides.

The small intestines were filled from the pylorus down to their lower extremity by a pappy matter, having an acid reaction, and composed of a yellowish liquid, floating on white mucous flakes. This liquid still contained traces of modified sugar and of prussiate of potash.

In the large intestines solid matters of a darker colour were enclosed, which were penetrated by the ingested liquid; for by presenting a stick, dipped in a solution of persulphate of iron, to the anus, prussian blue was immediately formed. By washing these matters in water, and passing the liquid over a charcoal filter, traces of modified sugar were still perceptible, by means of Frommherz's reagent. Hence, therefore, as in the preceding observation, a portion of the saccharine fluid had traversed the whole of the intestinal canal.

Chyle.—Although the greatest care was exercised, we were able to collect only an extremely small quantity of this liquid—not more than 1 gr. 5. It was transparent, almost colourless, and of slight consistence. It became covered over by a delicate fibrinous pellicle, and contained neither prussiate of potash nor the colouring matter of saffron; mixed with twice its weight of water, and heated to 100 degrees, it became troubled. The filtered liquid, when heated with a drop of Frommherz's reagent, was partially reduced. Can we, from this fact, positively assert the presence of modified sugar? We think not, especially after the prussiate of potash, and the colouring matter of the saffron, have been proved to be absent. The chyle was too small in quantity to admit of further experiments.

Blood.—The serum had a very indistinct yellow tinge; the whole of the blood was coagulated by heat, and then, after having been mixed with twice its weight of water, thrown upon a filter. The yellow liquid, previously mixed with a few drops of sulphuric acid, was introduced into a retort, and slowly distilled. An acid liquid passed over, which became troubled by the addition of nitrate of silver, and reduced a few traces of the bichloride of mercury to the state of protochloride by boiling.

The liquid remaining in the retort was filtered, saturated by soda, and afterwards mixed with Frommherz's fluid, and boiled; the reduction was then very manifest.

Bile.—The gall bladder contained 4 gr. 3 of a greenish yellow bile with a brown shade, having an alkaline reaction, and yielding a very abundant greenish-blue precipitate by the addition of sulphate of iron. It was diluted with twice its weight of water, and acidulated with weak sul-

phuric acid, which coloured it green. This liquor was filtered, and the acid in excess saturated with soda; the mixture was then mixed with a few drops of Frommherz's reagent, and boiled; a very considerable reduction took place.

Urine.—The bladder was full of an amber-coloured acid urine, containing urea, and the other principles common to the urine of the dog. It gave an abundant blue precipitate by the persalts of iron, but showed no trace of sugar by Frommherz's reagent.

19, Langham-place.

## CLINICAL NOTES.

NO. VI.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio Janeiro, and Member of and late Honorary Secretary to the Parisian Medical Society, &c.

Perhaps there is no one subject in clinical medicine involved in greater difficulty than the judicious selection and well-timed application of hypnotics. No other class of remedies have so much of hazard when ill applied, and the elimination of the particular hypnotic indicated becomes more difficult from the vast differences among themselves to be found in the various members of this class. The most simple of hypnotics is the harmonious arrangement and continued production of certain sounds, which in infancy, and in certain states of the nervous system, act in producing sleep in a remarkable manner; this fact is to be referred to the great elementary laws which regulate the economy of the nervous system, and has nothing in it of mysterious or difficult of understanding which have not all other general and primary facts in physiology. It is known to all people, and from all time, and is thus exquisitely expressed, in a verse of a Greek girl's song, by De La Martine:—

“Sais-tu les airs qu'il faut pour assoupir,  
Le jeune enfant qui pend à la mamelle?  
Entends, entends gémir la tourterelle:  
D'une eau qui coule imite le soupir!”

In examining alleged mesmeric phenomena it is necessary to inquire which of them may be brought under this same great general law, as such will be probably true, and will have no novelty except in detail or application; the remainder, which cannot be brought to harmonize with this or other established physiological facts, will, of course, require to be further and severely tested, according to the value and nature of evidence so dealt with.

General bathing, in warm water, or the cold affusion, are both remedies of this class, acting in different ways: the former being most grateful to the natural instincts of most patients (a source of indications never to be lost sight of), and most generally applicable. In circumstances somewhat altered, bleeding, either from the arm or foot, or by leeches from the hemorrhoidal veins, is of vast utility in modifying the state of innervation which impedes sleep. The state in which I considered cold affusion as the best hypnotic, is that of excitement without power; while, when increased force of arterial action, or an overloaded state of the hepatic or cerebral venous systems are present, bleeding is indicated: general irritability, with heat of skin, calling for warm bathing. The vegetable and chemical hypnotics which I have chiefly used are, the cyanide of potassium, hydrocyanic acid, lupulina, the extracts of the wild and garden lettuce, digitalis, morphia, and opium. Of all these, that which, whilst yielding greatest service, is yet of most difficult application, and most abused, is opium; the rules for its exhibition and its indications are matters of trivial knowledge, but often overlooked; I shall here only say that, in ordinary practice, it is too often unjustly laid aside to make way for the salts of morphia. In all diseases participating in the nature of delirium cum tremore, or of tetanus (bleeding, according to the indications of the case, being premised or omitted), opium is far superior to any salt of morphia as an hypnotic. In cases of agrypnia, in nervous or hysterical individuals, I obtain the best effects from the cyanide of potassium, which I administer in the quantity of two grains daily, in divided doses. In the restless nights of many fever patients it is also in-

valuable. This remedy is most useful in such cases in soothing the general nervous excitement, and, in conjunction with an occasional tepid bath, in conciliating sleep. Hydrocyanic acid has, in my practice, almost entirely ceded the ground to this cyanide. In cases of a similar description, the extracts of lettuce may be used. I have endeavoured, but without success, to ascertain the fact of a difference of power in the wild and cultivated varieties. The ordinary dose I employ of either being ten grains. Lupulina I have tried, and think that in agrypnia, combined with the wandering, mild delirium of old age, I have found it of service; but its greatest use is in those cases where uneasy sensations of the epigastric nervous centres occur at night and prevent sleep; it requires to be given in a full dose of ten or twelve grains. Digitalis ranks only second to opium as a valuable hypnotic, but is indicated in most opposite cases. In stout, plethoric individuals, in whom excess of pain, disordered functions of the stomach, liver, &c., cause loss of sleep; where meningitis may be feared as a consequence of cerebral excitement, and where bleeding is unadvisable from an absence of marked congestions, or a fear of causing retrocession of local symptoms in a gouty habit, &c., then digitalis in full doses is our almost only resource. I lately had a patient, a stout man, subject to hereditary rheumatism, but otherwise healthy, who, having his usual sciatica, but accompanied by a perversion of the gastro-hepatic functions, anorexia, &c., passed three successive weeks without closing his eyes, notwithstanding the use of morphia, lactucarium, aconite, &c.; from the state of the venous circulation it was impossible to obtain blood from the incision made in the arm. Leeches were applied *ad anum*, and three grains of digitalis were given daily in two doses; from the commencement of the use of the digitalis, the general uneasy sensations diminished, including the weight about the eyes, the bitter taste of the tongue, the anorexia, and when this remedy had produced its physiological effects, sleep was gradually restored. I may add that the rheumatic pain had no connection with the presence or fault of sleep further than indirectly, through the general nervous excitement and perverted organic functions. This patient was, fortunately for him, endowed with the *temperamentum Bæotium* in a high degree; had he possessed much cerebral activity, he must have sunk from exhaustion or meningitis. In all cases where there is increased tone of arterial action, or fear of cerebral congestion, or a disordered state of the secretions, digitalis should be selected as a hypnotic in preference to opium. In highly irritable nervous individuals, hyoscyamus is also worthy of trial; but no medicine is with them so useful an hypnotic as the cyanide of potassium. At the same time it must be confessed that, in these subjects (the persons of the class called nervous), it is difficult to appreciate and compare the effects of medicine: at one time disease in them being markedly obstinate; at another ceding to trifling measures, and not presenting the regular and gradual march and course of development which are observed in that of the sanguine or muscular temperaments. It is in agrypnia, as it occurs in this class, that a variety of domestic medicines which enjoy popular fame as hypnotics, obtain them credit.

I shall probably extend these observations at a future time, meanwhile I will observe that what precedes illustrates the necessity of making a careful valuation of the pathological causes of each individual instance of sleeplessness in disease, and the dangers (though no more proof can be wanted) which attend what is called the symptomatic treatment of disease—the substitution of symptoms for their diversified causes and modifying agents—being the greatest and most anti-philosophical error the ill-educated practitioner can commit.

City of Campinas, province of San Paulo, Brazil, March, 1846.

PERSIA.—According to the last arrivals from Bagdad, the cholera was making great ravages in the city; 1,400 persons have already died by the disease. Fears are entertained that it will reach Constantinople, as it was from the same direction that the last attack came.



# PUERPERAL MANIA: OCCURRING SUDDENLY THREE DAYS AFTER DELIVERY, TREATED BY OPIATES AND PURGATIVES.

By HOWELL EVANS, Esq., Pwllheli, N. Wales.

M. P., aged twenty-two, single, a farmer's daughter, remarkably good-looking, but the victim of a seducer; had always enjoyed good health until a few months back; since had been much troubled with indigestion and restless nights, partially owing to a degree of coolness on the part of the friends, and a mind brooding over her future prospects.

I saw this young woman twelve hours after she had been delivered of a fine child, the placenta being still attached; the uterus was flabby, reaching above the umbilicus, and not firmly contracted; there had been no hemorrhage; pulse 120; breathing not hurried; no abdominal tenderness; the placenta was readily removed, being only detained by the circular fibres of the cervix uteri; for three days everything seemed to go on well with the exception of but little sleep during either day or night. On the third day she awoke out of a slumber, exclaiming that she was dying, assuring her friends that the womb had come down, and that she had another child; no persuasion nor threats on their part could persuade her to the contrary; she was allowed to remain in this state for two days, continually bewailing her supposed inevitable destiny. When I saw her on the third day, her friends having been much alarmed a short time previously by the sudden occurrence of fits of an hysterical nature, there was no abdominal tenderness; there was pain and heat of the scalp; bowels confined; pupils much dilated, but sensible to the stimulus of light, and scarcely a moment without raving, and maintaining the greatest antipathy towards her child.

The following treatment was pursued: the head shaved, and constantly wetted with spirit lotion; a saline cathartic mixture, and a grain of opium with three of blue pill, every four hours until the bowels would be freely acted upon; but the opiate to be continued until sleep should be induced. Late on the day following she was quite rational. She had been freely purged on the previous evening; the opiate had been continued until the system was under its influence; she had had a comfortable night comparatively; her demeanour towards the child was that of an affectionate mother; it had been applied to the breasts; and an abundant secretion of milk had now been established; she was ordered to continue the opiate every night, and the purgative draught every other morning if necessary. She progressed rapidly every day, and, at the end of a fortnight, was able to sit up.

*Remarks.*—First, what might be the probable cause of such an attack in this young woman? Might it not be attributed to the loss of rest induced by a disturbed state of the sensorium, aggravated by the mind brooding upon misfortune; and, in addition, a constipated state of the bowels? It was upon this supposition that the above-detailed treatment was adopted: the saline, purgative with the view of clearing the intestinal tube from any irritant that might be lodging there; the opiate to quiet the nervous system, and to procure sleep, the best restorer of nature's exhausted efforts—the result, in the majority of instances, of the great change in the uterine functions, and the establishment of the lacteal secretion.

As to the prognosis, in such a case we may, I think, with some degree of certainty, be pretty sanguine as to a favourable issue when the labour has not been mismanaged, when there is no predisposition to insanity, and if attended to at its very onset.

# ALLEGED PAINLESS OPERATIONS BY MESMERISM.

By JAMES ESDAILE, M.D., Army Surgeon.

(Continued from p. 69.)

"*Frightful Convulsions.*—June 6, 1845. I was called at eight o'clock last night to see the wife of Baboo Essanchunder Ghosaul, deputy magistrate of Hooghly. I found her in dreadful convulsions;

she was speechless, and suffering from a constriction in the throat, that threatened to suffocate her every minute, and she constantly beat or pointed at the part. At one moment her body became perfectly rigid, and in another it was bent back like a bow, till she rested on the back of her head and heels only. I never saw such convulsions except in hydrophobia. All that I knew of the resources of medicine was useless, for how could she take physic when she could not take breath? I therefore had recourse to my new solvent power, and, after nearly an hour's hard work, I left her asleep and catatonic.—July 1. There has been no return of the convulsions."

"*Rheumatism and Nervousness.*—Sept. 25. Mr. Calder (I mention his name at his own request), who has been twenty years in India, came to me to-day, complaining of general rheumatism, nervousness, and debility. He walks with great difficulty, with the help of a stick, and cannot ascend a stair. His nerves are shattered, his eyesight is weak, and his hands tremble when writing; when he walks on smooth ground, he fancies that it slips from below him, and the effort made to save himself nearly throws him down: of late he has not been able to drive his buggy, from a feeling that it is impossible for him to prevent his horse from running into any carriage he meets. He has been in this state for two years and a half; during which he has gone a tour of doctors, and swallowed a dispensary of physic, to no good purpose. I said that I could not in conscience physic him more, but recommended him to try what nature would do for him, as, upon the whole, I thought his case adapted for mesmeric treatment, but that it would require time and patience to do him any good. He was very glad of any untried chance of relief, and I desired one of my people to mesmerize him for an hour in bed, every night. Never having been present when Mr. Calder was mesmerized, I am indebted to him for the following notes of his case. 'On the 25th of September last your native assistants, as directed by you, made the first attempt to induce the mesmeric sleep, but without success. The trial lasted for an hour and a half. 26th and 27th September, ditto. 28. After a persevering trial for the same length of time, I was thrown into a trance, from which I awoke after upwards of five hours; I found great difficulty in raising my eyelids or keeping my eyes open. I left the couch and retired to bed, and had my natural sleep afterwards, till six o'clock next morning. For a week afterwards the efforts to mesmerize me were repeated for an hour daily, but without farther effect than causing a sleep of a few minutes. I, however, continued to enjoy my natural rest at night, found my pains abating daily, and my nerves considerably braced up; so much so that I could walk up and down stairs without assistance, and with every confidence drive out in a buggy alone, which I could not have attempted for two years and a half previously. Up to the 17th of October I was thrown into a sleep every third or fourth night, for about two hours; the effect of which you may judge of from my being able to walk yesterday morning more than four, and this morning more than six, miles.' (Signed) 'J. Calder. October 28, 1845.'

"*Rheumatism.*—December 14. Podo, a Hindoo woman, a beggar, aged forty. She has been a cripple for a year and a half, from rheumatism in her shoulders and knees. There is much tenderness about the joints, and her knees are so weak that she cannot sit with her hams bent, and is obliged to obey the calls of nature standing, and she cannot rise from the ground without pushing herself up with her hands. To be mesmerized an hour daily.—December 16. Slept half an hour after the process to-day.—December 17. Feels much better.—December 18. Slept an hour to-day; the pain about the joints is much less; she can rise from the ground without aid, and walks much more freely.—December 19. Says she has no pain, and is quite well; dismissed cured, at her own request."

"*Complete Palsy of all the Left Half.*—August 9. Geosis, a husbandman, aged twenty-two. A man of large frame, and in good condition. There is complete palsy of the whole of the left side; the

arm can only be separated from the side for a few inches. He has taken mercury six times in four years for rheumatism. The paralysis began four months ago, and he has been three months in his present state. To be mesmerized for half an hour daily.—August 18. He sometimes goes to sleep during the process, and generally sleeps for two hours after it. He can raise the arm more, and there is a little resistance in the left side on walking between two persons.—August 20. He began to walk a little with a stick to-day.—August 25. Improves daily; there is more command over the diseased side; the leg is stronger, and he raises the arm higher; he walked to the end of the room to-day, with the help of a stick only.—Sept. 8. Much better; walks across the compound, with the aid of a stick; arm also improving.—Sept. 20. He has discarded his stick, and crosses the compound unaided.—Sept. 25. Daily improving; he can hold his arm nearly perpendicular; there is every prospect of his recovering, and he was allowed to go home, with orders to his friends to mesmerize him daily, in the way they had witnessed."

"*Tic Douloureux.*—Dec. 10. Horo, a Hindoo woman, aged twenty-eight. She has suffered for three years from tic douloureux in the right eyebrow and temple, especially in the cold weather; it is very intense now, and comes on at six A.M., remaining till two P.M. To be mesmerized. I returned after an hour and found her asleep; she awoke soon after, and said there was no pain whatever in the part now, and that 'it was cold as water.'—Jan. 8. She has had no return of pain."

Dr. Elliotson, in reference to these cases of Dr. Esdaile, has published in the "Zoist" the following letters, with his own continuatory remarks:—

"Calcutta, July 4, 1846.

"My dear Elliotson,—My conscience has long been upbraiding me for not having written to you to report to you the great progress which mesmerism has recently been making in this distant neighbourhood; but in truth I am so oppressed by public duties as to have been compelled to abandon all private correspondence for the last two years. I recently, however, had an opportunity of visiting Hooghly, and witnessing some of Dr. Esdaile's operations, which I cannot refrain from mentioning to you, as they completely convinced me of their perfect freedom from pain or suffering of any kind to the patients who were the subjects of them. I wrote Dr. Esdaile a brief note, which he published in the newspapers here, and of which I send you a copy by the present mail. The surgical details of the cases he will himself publish. The tumour removed, together with the diseased testes, must have weighed at least 50 lb.: the cancer of the colic was a dreadful-looking mass of disease; and the paring of the heel, about as painful an application of the knife as could be resorted to; yet, in each and all, there was entire absence of every, even the slightest, indication of physical suffering. I not only satisfied myself of this, but carefully watched every movement of the patients, to discover the faintest ray of feeling, but without success. Dr. Esdaile has, as you are aware, now performed more than one hundred mesmeric operations; and so great is his success, as well as the confidence which the natives far and wide have in his skill, humanity, and the painless nature of his cures, that scarcely a case of elephantiasis of the scrotum is now to be met with in a Calcutta hospital. People of all classes, and with every species of ailments, are resorting to him, and in most instances with benefit to themselves. He is one of the most able, well-read, and proficient members of the Bengal Medical Service, and I am quite sure his successful pursuit of the subject, for which you have sacrificed so much, will be a great and true source of delight to you.

"With every sincere wish for your health and happiness, believe me,

"Ever yours most truly,

"FREDERICK J. MOUAT.

"J. Elliotson, Esq., M.D., &c. &c. &c."

"Dr. Mouat is one of the medical professors at Calcutta, and the following is his public letter,



accompanied by one from a clergyman. A friend of mine saw a letter from the Bishop of Calcutta, describing a painless terrific operation which he witnessed. Dr. Mouat saw all my mesmeric phenomena and cures at University College Hospital; and had too much sense not to believe, and too much virtue to conceal his belief.

*Englishman*, June 10, 1846.

"My dear Dr. Esdaile,—I consider myself much indebted to you, for the kind manner in which you permitted me to witness your operations on Monday last, upon five patients, who had been subjected to the mesmeric influence, before being submitted to the knife. It would be needless for me to enter into any detail of cases, which I doubt not will be more accurately and minutely recorded by yourself; at the same time I deem it to be only fair and just toward you to state my complete conviction, that the operations in question were unattended with any physical suffering to the individuals who were the subjects of them.

"Two of the patients did not appear to be in a perfect state of mesmeric coma, and yet, even in these cases, beyond a tremulous movement of the upper eyelids and spasmodic action of the muscles of the face and neck, with a low moaning, all of which may and did exist without the occurrence of pain or sensibility, the men positively declared their entire freedom from suffering of any kind.

"I examined the state of the pulse in the individual from whom you removed the scrotal tumour, both during and immediately after the operation, and found it to be soft, full, and free from any of the agitation or other effects usually attendant upon surgical operations.

"The complete freedom of the countenances of three of the men from distress, anxiety, and suffering, both during the mesmeric state and immediately on waking, was particularly striking, and attracted the attention of most of those who were present.

"I shall not fail to relate the results of my visit to my friend and former professor, Dr. Elliotson, who will, I am sure, derive the liveliest satisfaction from your successful and humane exertions in the alleviation of human suffering.

"I remain, my dear Dr. Esdaile,

Yours very sincerely,

FRED. J. MOUAT.

"Medical College, Calcutta, June 3, 1846."

"Being accidentally at Chinsurah, owing to the dangerous illness of a near relative, and having obtained Dr. Esdaile's kind permission, I proceeded on Monday morning last to the Hooghly Imambarra Hospital, where I had been informed several surgical operations would be performed on patients thrown artificially into magnetic or mesmeric sleep.

"On my arrival at the hospital I was shown a native woman, whose leg had two days before been amputated while she was in a mesmeric trance, and found her not only quite easy but absolutely lively. The Bengalee language being familiar to me, I spent ten minutes in conversation with this woman, during which she told me, that when her leg was taken off she did not feel the least sensation of pain; indeed, that even on her waking, she was not aware that the operation had been performed, and could only believe it when she had ocular demonstration of it. She moreover added, that since the operation she had experienced no unpleasant feeling, except a slight heat or burning at the end of the stump. I was quite satisfied that she spoke the truth, when I perceived that the only concern she seemed to have was to know how she would manage to move about when permitted to leave her bed; and she felt not a little comforted when I told her that, no doubt she would be supplied with crutches, which would render locomotion practicable and easy.

"At a quarter past eleven the operations for the day commenced. These were five in number, and several evidently of the most dangerous description. I must say, that in my opinion, three of these, at least, could under ordinary circumstances not have taken place without violent struggles, shrieks, and other expressions of deep anguish being elicited from the patients; and yet all five, during the

operation, remained perfectly calm and passive, and apparently in the soundest sleep—no movement of their body being perceptible, with the exception of the usual heaving of the chest when breathing. One only was occasionally slightly groaning, though, as will appear in the sequel, unconsciously to himself. A medical gentleman present, whom I requested to feel the pulse of the patients, declared it was natural, and indicating no excitement whatever. Their features, all the time, were composed as in natural sleep, without exhibiting any contractions of the muscles, or any other external sign of suffering.

"After the five operations had been successively ended, and the patients had recovered their consciousness, I went to the bedside of each of them, with a number of the gentlemen present, and asked all separately whether they had felt any pain during the operation? Every one for himself, and without having heard what the others had said, replied, he had experienced no pain whatever, and, indeed, had no idea till after waking that anything extraordinary had been done to him. I further inquired of them, whether they then felt any pain? Two answered they felt none at all; and the others said they had merely a sensation of unusual heat about the parts operated upon. I then put the question to the individual who had occasionally groaned during the operation, as to why he had done so? He replied, that he was not at all aware of having groaned, and that all he knew was that he had just awoke from a sound sleep.

"My decided opinion, from the expressions of the patients, which were uttered in the most artless and unambiguous manner possible, was, that they had not experienced the slightest pain or pang while the operations were being performed, and, afterwards, that the burning sensation which two of them complained of was evidently so trifling as barely to deserve the name of pain. My own eyes, moreover, convinced me that they had not in the least moved or shrunk during the painful operations, and that, subsequently, they were calm, collected, and even cheerful, to a degree I would have thought impossible in any persons placed in the same circumstances. The above are simple, unvarnished facts, from which the reader of this statement may draw his own conclusions.

"Not being a medical man, I feel incompetent to describe the operations that were undertaken, nor do I deem it necessary to give here an opinion on the subject of mesmerism in general. Suffice it to say, that after witnessing what I did, I do consider mesmerism as a valuable gift of God's providence, which, when seasonably used, may prove the means of alleviating much human suffering and misery, and which, therefore, ought to be thankfully received and acknowledged. At the same time I cannot but express my deep conviction, gathered from what I saw, that mesmerism, in order to be rendered really beneficial and safe from abuse, should on no account be practised by any but medical men; and even by them for medical purposes only.

A. F. LACROIX,

"Missionary of the London Missionary Society.  
Chinsurah, Thursday, June 4, 1846."

The next public letter was written by Dr. Webb, another professor in the Medical College of Calcutta.

*To the Editor of the Bengal Hurkaru.*

June 4, 1846.

"Sir,—There is now no medical journal at this presidency; I will therefore trouble you to publish this narrative. It must interest all men—for all are liable to suffer. But although I give you my name, unless you think it requires such confirmation, I would rather you omitted it.

"I heard from an ex-student of the Medical College that Dr. Esdaile was about to perform some operations in surgery during the mesmeric trance. I set off, thinking that no medical man is justified in neglecting any opportunities that may advance his knowledge in medical science, and of the best method of relieving human suffering. I found, on arrival at the famed Imambarra Hospital, the compound was full of carriages, and that I

was not the only disciple of Esculapius who thought it worth while to go fifty miles in search of truth. One of the Presidency surgeons, Dr. Chalmers; the secretary to the Council of Education, Dr. Mouat; another professor of the Medical College, Dr. Allan Webb; the civil surgeon of Howrah, Dr. Green; besides Dr. M'Rae, and I dare say many others, had braved the terrors of a burning sun to arrive at Hooghly by eleven o'clock. But there were others besides medical spectators,—reverend clergymen, the Venerable the Archdeacon and the Reverend Mr. Laeroix; besides judges, magistrates, and other civilians, as Mr. Russel, Mr. Samuels, Mr. Young; military men also, as Major Green; besides merchants and men of science. Mr. Simms appeared to be an observant spectator of this extraordinary scene.

"On passing into the operating-room (an open place on one side of a square, open court), the patients to be operated upon were seen sleeping profoundly; at the head of each bed, leaning over the patients, were the native mesmerizers in full operation, drawing their fingers over the nose to the top of the head, breathing on the sleepers, &c.

"At a signal from the doctor the first man was brought out, on his bed, for the removal of a large elephantoid tumour, the very size of which appeared to astonish some of the spectators. Dr. Esdaile very coolly set about removing it—his mode of operating was peculiar—and he worked with a leisurely manner that convinced me he had the most certain conviction that he was giving no pain, and, therefore, in no hurry. The man never awoke—but with the exception of one or two uneasy starts, and slight groans, such as one sees in an uneasy dream, at which times the native mesmerizer (who quietly continued his operations all along) seemed to redouble his breathings and passes, with the effect of reducing the troubled respiration; when the regular pulse and regular respiration continued to the end of the operation, in which were removed, besides the mass of disease, organs which are naturally endowed with exquisite sensibility. Now, this man was laid on one side, removed with his bed to the side of the same room. The doctor, all 'dabbled with blood' (a gory spectacle for those who could see), stepped into the other back apartment, but merely separated from the operating-room by a range of pillars, and ordered out another man. Now, this is so contrary to our usual managements and concealments, as to be very striking. The same nonchalance was evident in Dr. Esdaile's manner of handling a horrible case of cancer, and even striking in his knife just to ascertain how far the disease extended. This mass, which here, also, was removed, included the same parts, and was equally endowed with exquisite sensibility. The man never awoke—never, so far as I recollect, even started—and slept quietly afterwards, as quietly as before the operation. He and his bed were removed to the other corner of the same room. The doctor never, it was clear, thought of shocking a third man, for he and his mesmerizer came out, unappalled by the doctor's shirt-sleeves, now of a pretty uniform crimson. A large, deep, ragged ulcer upon the heel was pared down as coolly as a farrier pares the horse's hoof. He never stirred, slept like a child, and when the doctor left his hoof, when pared, there it lay, bleeding, it is true, but a very respectable-looking finish given to it. Had the man been sensible, this would have been torture so excruciating that I have heard the hospital ring with the shrieks of patients for whom it is necessary.

"Another sleeper was brought out and turned over to the sub-assistant surgeon. The operation was not a painful one; but the man slept on, and I observed the mesmerizer, an older man than the others, without being ordered, or even noticed, that I knew of, by any one but myself, blow sharply in the man's face and make one or two reversed passes; the man awoke, looking with the half-angry look of a disturbed sleeper, wide awake; but knowing nothing of what had been done to him until he looked. It was the impression on my mind that the mesmerizer was heartily tired, and glad to get away; hence he took the first opportunity to be off.



"By-and-by the other sleepers awoke; each and all declared publicly, when they were questioned in Bengallee, by the Rev. Mr. Lacroix, that they knew nothing nor felt anything whatever of the operation. I have seen many who have suffered these serious mutilations which they suffered with the cold sweat of agony bubbling up for hours afterwards, and a pulse so depressed that it was hazardous to move them; whereas these were quite chatty and lively. Dr. Esdaile explained the reasons (very weighty) that induced him not to delay the amputation of a woman's leg whom I saw. She never suffered a pang. I cannot but state my firm conviction, after having seen the woman, that she must have died if operated upon in the usual manner.

"This person, and the large elephantoid-tumour case, were not only saved pain, but a vast amount of vital depression, which might in either case have proved fatal.

"Now, I have simply stated these facts, as a testimony to the important benefits Dr. Esdaile is conferring upon the poor and wretched natives. He does not mesmerize these, he teaches others; he orders others, and they do it so effectually that the doctor never once looked at any of his patients whilst operating. He seems perfectly assured that they are spell-bound—nobody holds them down. They might kick as much as they like, but they do not stir. He is not afraid of the others being awake by their shrieks. He never puts them in different rooms; they who are to be operated upon, and they who have been operated upon, are all in the same room. People talk as loud as they like, nay, even laugh, and that awe which the hardest usually experience, which the sight of human suffering naturally inspires, is here quite banished.

"In fine, that which makes the boldest and best of us recoil from surgical interference so long as we possibly can, and, alas! sometimes longer than we ought to do—that makes all native patients resist, until life and limb is lost together—the natural dread of pain is entirely removed; there is no resistance of the muscles—no rebellious starting at the most critical period. It is, I believe, quite as easy with mesmerism to operate upon the living as upon the dead.

"I cannot conceive, it is hardly possible to tell, how much good may be effected by those whose high moral conscientiousness confines the operation of their wonderful power to a use which we cannot look upon as legitimate. And the satisfaction of having contributed to so great an amount of alleviation to human pain and misery will, I cannot doubt, afford higher gratification to Dr. Esdaile, than the honour even of introducing into India this wonderful improvement in operative surgery.

"June 2, 1846."

"A. W."

## HOSPITAL REPORTS.

### MEDICAL TIMES PRIZE REPORTS.

#### THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

### SURGICAL CASES.

(Continued from p. 111.)

#### HERNIA.

CASE 1.—Charles Wridgeway, aged thirty, carpenter. Admitted June 5, 1845. Under Mr. Hawkins.

Half-past eight P.M. There is a hard, tense tumour descending from the right inguinal canal into the scrotum; the stricture appears to be very tight, and no impulse is given on coughing. There is constant vomiting, and the bowels have not acted since the 3rd. He has had a hernia for six years, for which he has worn a truss, and this for some time past has been out of repair. The hernia has come down several times, but he has always been able to reduce it himself, until the evening of the 4th, when it came down and he was unable to reduce it. On the morning of the 5th, he was attacked with sickness, and he was bled, he says, to Ojss.,

and the taxis applied without avail. He was put into a hot bath at 100 degrees, and then ice was applied, but without avail; and at half-past nine P.M. the operation was performed. Pulse 130, weak. On cutting down upon the tumour, it was discovered that the vas deferens was spread over the anterior surface of the sac, and that the spermatic artery ran behind it. The sac was opened, and a small knuckle of the small intestine was found to be somewhat congested and surrounded by omentum. The stricture, which was at the internal abdominal ring, was very high up, and the incision was obliged to be extended before this could be divided; the gut soon regained its proper colour and was returned; the omentum, being adherent to the testicle, could not be returned. The wound was brought together with sutures, and lightly dressed. The sickness now ceased.

Ten P.M. *Rx.* Magnesiae carb., gr. v.; magnesiae sulph., 3 ss.; aq. menthae virid., 3jss.

6. Eight A.M. Has slept a little during the night, about an hour and a half at a time; sickness has not returned, but the bowels have not yet acted. Pulse 120, full. Has a good deal of pain and tenderness of abdomen, increased by pressure. Cat. anthemidis abdom.

*Rx.* Hydrarg. chlorid., gr. vj. statim.

Eleven A.M. Still a good deal of pain and tenderness; pulse 130, full; tongue dry; has great thirst; bowels have not acted.

*Rx.* Hydrarg. chloridi, gr. iij.; opii, gr. 1-6 3tis horis.

One P.M. Tongue dry and brown; countenance flushed; pulse 112, small, sharp, and wiry; bowels have not acted. V.s. ad 3vij. After the bleeding the pulse rose to 130, was full, sharp, and easily compressible; pain relieved.

Nine P.M. Countenance flushed; pain increased; pulse 120, small and sharp; bowels have acted well. V.s. ad 3xij., after which the pulse became full and soft, and the pain much relieved.

7. Ten A.M. Has slept tolerably well; pulse 112, full, and easily compressible; no pain, excepting from the omentum remaining in the sac—the pain extending from the umbilicus in the direction of the inguinal canal.

One P.M. Pulse 108, of good volume and more quiet; tongue slightly coated; bowels have acted once more. Omit. pil. Omit. cat. anthem. There is no pain now; sutures removed; wound healing by the first intention.

8. Ten A.M. Pulse 108; tongue dry; has passed a comfortable night; has no pain or tenderness.

Two P.M. Wound appears to have healed by the first intention; pulse 100.

9. Pulse 86; tongue dry; slept well; bowels have acted freely several times since yesterday afternoon.

One P.M. There is now a discharge of serum from a small opening in the centre of the wound—this opening was dilated by means of a probe, and some brown dressing applied over it; right testicle swollen—this was supported by a broad strip of plaster; pulse 84; tongue dry.

10. Slept well; pulse 84, quiet; complains of no pain; bowels not open.

11. Pulse 92, soft; no pain; going on well; bowels not open; the upper part of the wound is open, and displays a portion of sloughing omentum—a probe can be passed round it; there is no confinement of matter. Catap. panis. Fish diet.

12. Meridie. Did not sleep much during the night; pulse 84, smaller, bounding; tongue moist; bowels open; discharge brownish.

Half-past one P.M. Has just had ordinary diet by mistake. Pulse 100, sharper; face flushed.

*Rx.* Haust. salin., 3jss; vini antimonii, m. xx.; potass. nitratis, gr. xv. 4tis horis.

13. Pulse 76, soft; tongue moist and cleaner; wound discharging freely, and looking more healthy; testicle softer; bowels not open; is better, and feels more comfortable. Beef-tea and arrowroot.

14. Pulse 76, soft; tongue quite clean; bowels not open since the 12th. Fish diet.

16. Pulse quiet, natural; bowels regular; wound much cleaner, and matter much more healthy in appearance; no more omentum has sloughed. Omit. catap. panis. Water-dressing.

19. Opening filling up. Ordinary diet.

23 Going on well; to wear a truss for a short time, daily.

July 2. Cured.

CASE 2.—Harriet Barwick, aged forty. Admitted May 1, 1845. Under Mr. H. C. Johnson.

Eight P.M. There is a hard, tense tumour, about the size of a hen's egg, exceedingly tender, situated in the right groin, below Poupart's ligament. She has had a hernia, which has come down frequently, but she was always able to reduce it; at six P.M., it came down while straining at stool, and she was unable to reduce it herself; she was soon attacked with vomiting, and sent for a surgeon, who applied the taxis, but without effect. On admission, the taxis was again applied; she was put into a hot bath, and all attempts to reduce the hernia having failed, the operation was performed at twelve P.M. Pulse 120, very weak. She has been in the habit latterly of working hard and living low, by which means she was very much reduced. The vomiting continued up to the time of the operation.

On cutting down upon the tumour, the sac was found to be thin and translucent, as in a recent hernia, the stricture was divided, and the gut, which was but slightly congested, was returned without any difficulty; the edges of the wound were brought together with sutures and a few pieces of strapping.

*Rx.* Hydrargyri chloridi, gr. vj. statim.

2. Nine A.M. Bowels have acted once, motion loose and dark-coloured; has been sick once after taking a cup of tea; still feels sick, but has not vomited again.

*Rx.* Haust. salin. effervesc., 3jss.; acid. hydrocyanici Scheelii, m. ij. 6tis horis.

Eleven A.M. Still feels sick; has no tenderness of abdomen; pulse 94, weak.

One P.M. Pulse 94, very weak; still feels sick; no tenderness of abdomen; tongue rather dry. Beef-tea and arrowroot.

Ten P.M. Cannot make water; catheter passed; not quite so sick.

Adde pot. tart. 3j. sing. dos.

3. Eleven A.M. Slept well last night; pulse 94, weak; tongue rather dry and white, but not so much so as yesterday; can make water freely; sickness relieved.

One P.M. Wound looks healthy; simple dressing; no tenderness of abdomen; pulse 94; bowels have not acted since the first time. Omit. haust.

*Rx.* Haust. salin. ammon. efferves. 3jss. 6tis horis. Olei ricini, 3ij. statim.

4. Pulse 80; tongue clean; no tenderness of abdomen; bowels have acted three times since castor oil; sutures removed from wound, which is healing by the first intention.

5. Pulse 84; tongue clean; did not sleep well last night; no pain or tenderness; wound has healed by the first intention; bowels confined.

Rep. olei ricini 3ij. Omit. haust.

8. No pain; doing well in every respect.

10. Truss applied.

21. Cured.

CASE 3.—Mary Sears, aged forty-four; single. Admitted Jan. 27, 1845. Under Mr. Cutler.

There is an oval, circumscribed tumour, not quite so large as an egg, situated below Poupart's ligament, in the crural region; it is not elastic, but hard and solid; handling it gives but little pain, and there is no impulse given on coughing. The abdomen is neither tender nor distended. On the 21st, without any previous exertion, she first observed a swelling in the left groin, which gave her but little pain or uneasiness; she was, however, soon seized with vomiting, which has continued at intervals up to the present time, and for the last two days has been stercoraceous; her bowels have not been open since she first perceived the swelling; she appears very weak, and has been out of health for some time. The vomiting and constipation having lasted so long, the operation was at once determined on, to ascertain the nature of the tumour. One P.M. The skin and superficial fascia having been divided, a hard mass presented itself, having very much the appearance of a diseased gland. Several layers of this mass having been carefully divided, it proved to be a hernial sac, with the fascia propria and a quantity of cellular tissue agglutinated together by inflammation. The sac contained no fluid, and only a small portion of intestine,



which was adherent to it; the adhesions were broken up; it was slightly discoloured, and was easily returned without dividing Gimbernat's ligament. The edges of the wound were brought together with two sutures, and compresses of lint placed over. Two hours after the operation, it was discovered that there had been considerable oozing from the wound, appearing to come from some small deep-seated vessel, which could not be found; in order to secure it, pressure was made on the external iliac artery, and was obliged to be kept up till twelve P.M., when the disposition to hemorrhage ceased. She lost about  $\frac{3}{4}$  xv. of blood. She says that she was always of a hemorrhagic disposition; the slightest injury, as a cut finger, bleeding profusely and being stopped with difficulty. She had a copious motion at three P.M., after the operation. Vini rubri,  $\frac{3}{4}$  vj.

R. Tinct. opii, m. xx.; vini ipecac., m. xv.; mist. camphoræ,  $\frac{3}{4}$  ss. Haust. salin. statim et rep. post hor. ij. si opus sit.

28. Has slept for a few minutes at a time, on and off, through the night; there has been a slight oozing from the wound this morning, which has now ceased; pulse 100, very weak; she complains of feeling faint; the abdomen is not tender on pressure, though very much distended; bowels have not been open again.

R. Hydrarg. chloridi, gr. v.; sacchari, gr. v. statim.

R. Magnesite sulph.,  $\frac{3}{4}$  ss.; magnesite carb., gr. x.; aq. menthæ pip.,  $\frac{3}{4}$  ss. 4tis horis.

Vespere. Bowels have not been opened, and she now complains of great pain in them; a few drops of tinct. hyoscyami relieved this for the time. At half-past nine P.M. she was seized with more pain; she had great anxiety of countenance, threw her arms about the bed, and very soon died.

adit yd post mortem.

SECTION CADAVERICIS.

**Abdomen.**—The peritoneum contained some sero-purulent fluid of a dark colour, the greater part of which was, however, in the pelvis; the intestines were glued together by recently-effused lymph, and of a dark colour, in patches. Several of these convolutions of the small intestines were united by soft adhesions to the walls of the abdomen, in the neighbourhood of the left femoral ring, at its inner margin. Among these convolutions was the portion of intestine which had been strangulated; it was situated about two feet from the caput coli, of a dark colour, but neither thickened nor softer than natural; it measured about an inch and a half in length, and consisted of about two-thirds of the diameter of the intestine; towards its inner surface the portion of the gut was discoloured, but there was no distinct line of demarcation; the discoloration gradually blended itself with the other parts. Above this portion, the small intestines were distended with flatus; below it, they were contracted; but, with the exception of the inflammation of their peritoneal covering, they were healthy. In the neighbourhood of the ring about  $\frac{3}{4}$  ij. of coagulated blood were found between the peritoneum and the loose cellular tissue of the abdominal parietes; but the source of the hemorrhage could not be discovered. Liver, spleen, kidneys, and uterus healthy; ovaries also healthy. Hernial sac small and very much thickened; on its inner surface it was roughened by the adhesions of the intestine, and to which it was found united, at the time of the operation, by recently-effused lymph, which was easily destroyed by the finger; on its outer surface were several layers of condensed cellular tissue of a darkish colour, from the effusion of blood which was found spreading up the subcutaneous cellular tissue of the abdomen.

**Thorax.**—The lungs were emphysematous anteriorly, and slightly congested posteriorly. Heart healthy.

CASE 4.—Mary Holyman, aged thirty-five; married; seven children. Admitted July 23, 1845. Under Mr. Keate.

Half-past five P.M. There is a tense, painful tumour, about the size of an egg, in the right femoral region; no impulse is given on coughing; there is great pain and tenderness of the abdomen, and constant vomiting.

She has had a hernia for twelve years, and has worn a truss for the last four years. At nine A.M., on the 22nd, the hernia came down while making some unusual exertion, and she was unable to reduce it; at four P.M. she was attacked with pain and vomiting, which continued incessantly. On the 23rd she had medical advice; was bled, and the taxis applied before admission.

On admission, the taxis having failed, she was put into a hot bath, at 105 deg., and in about forty minutes she began to feel faint, and the hernia was easily reduced; but a small tumour still remained, which probably consisted of glands and omentum. The sickness was now relieved, but the pain and tenderness continued.

Ten P.M. Still pain and tenderness of abdomen, increased by pressure; pulse 100; bowels have not yet acted. Fetus abdom. enema commune stat.

R. Tinct. opii, m. xx.; aq. pimentæ,  $\frac{3}{4}$  ss.

24. Bowels have acted well; pulse 95; pain much relieved. Beef-tea and arrowroot.

25. No pain, either with or without pressure. Fish diet.

26. Much better. Ordinary diet.

30. Cured.

CASE 5.—Louisa Delisle, aged twenty-four; governess; married; no child. Admitted May 31. Under Mr. H. C. Johnson.

Three P.M. There is a tense and tender tumour in the right femoral region; no impulse given on coughing; there is sickness, but no vomiting; intense pain, and great anxiety of countenance; pulse 50, laboured. She has had a hernia for eighteen months, which occurred after making some unusual exertion; for the last six months she has worn a truss. She was walking very fast when she tripped over a bar of iron, exerted herself to avoid falling, went to the end of her walk, and was then seized with all the symptoms of strangulated hernia, and was brought to the hospital.

The taxis having failed, she was put into a bath at 96 deg., in which she vomited and fainted; taxis again failed; countenance extremely anxious; complains of severe dragging pain. She is of a delicate constitution, and appears extremely weak.

Seven P.M. The hernia was cut down upon, and the sac opened; it appeared to contain nothing but omentum, which adhered to the neck of the sac; a portion of intestine could, however, be felt through it. The omentum was opened, and the gut exposed very much congested; the stricture was extremely tight, and was divided by rotating the hernia knife on the finger, and cutting through a few fibres of Gimbernat's ligament; the gut recovered its proper colour, and was returned without much difficulty. There was some difficulty in returning the omentum, and, as it had been cut, and there was fear of its sloughing, a ligature was applied round it, and a portion removed. Wound brought together with sutures, and lightly dressed. Pulse 50, quiet.

R. Hydrarg. chloridi, gr. ij., p.h. ij.

31. Ten A.M. Did not sleep well; complains of pains in the back and loins, from which she has suffered for some time, but it is now increased; wound painful; bowels have been opened twice; pulse 70; countenance flushed, but not so anxious as before the operation.

R. Sodæ bicarb., gr. xx.; mag. sulph.,  $\frac{3}{4}$  j.; syrupi,  $\frac{3}{4}$  j.; aq. distillatæ,  $\frac{3}{4}$  j. Sumat inter efferves., c. succi limonis recent.,  $\frac{3}{4}$  ss. 2ndis horis donec alvus respond.

Half-past two P.M. Much the same; bowels not open; not much pain. Hydrarg. chloridi, gr. ij.

Ten P.M. Has some pain round umbilicus. Olei ricini,  $\frac{3}{4}$  ss.

June 1. Slept during the first part of the night; felt sick at twelve, but did not vomit; bowels were opened three times yesterday evening.

Five A.M. Complains of pain in the abdomen, increased by pressure.

Seven A.M. Pain exceedingly severe; pulse rapid, small, weak, and thread-like—far too weak to admit of venesection. Hirudines xvi. abdom.

R. Hydrarg. chloridi, gr. ij.; opii, gr.  $\frac{1}{4}$ , 2ndis horis.

Eleven A.M. Leeches somewhat relieved her; countenance very anxious, sunken; tongue coated, dry; pulse 120, very weak; complains of thirst;

still great pain in the abdomen. Hirudines xii. abdom. Catap. anthem. postea. Opii, gr.  $\frac{1}{4}$ .

Three P.M. Still great pain; mouth dry; countenance sunken; voice low; pulse very weak and rapid.

Six P.M. Has great pain in the upper part of the abdomen; constant vomiting; breathing hurried and laborious; pulse rapid, feeble, and scarcely perceptible.

2. Passed a somewhat better night; countenance less anxious; but there is still great pain, and vomiting of dark fluid like coffee grounds; pulse feeble. The vomiting and other symptoms continued, and she gradually sunk and died at five A.M., June 3.

#### SECTION CADAVERICIS.

**Abdomen.**—The cavity of the peritoneum contained some turbid fluid, thick, and of a dirty red colour; in the pelvic region this fluid was mixed with some flakes of lymph and some fluid of a decidedly puriform character. The small intestines were in their two upper thirds much dilated, and in their two lower thirds contracted. In their whole extent they presented large patches of increased vascularity, principally, however, where the convolutions were in contact with one another. One point, about three feet from the ilio-cæcal valve, was of a darker colour than the rest; but the coats were neither thickened nor softened. A portion of omentum, thickened and contracted, was traced into the hernial sac, to which it was adherent. The omentum in the sac was of a dark colour, in patches, and thickened by a recent effusion of lymph. The viscera contained in the cavity were all soft in texture and congested, but otherwise healthy in structure.

**Thorax.**—The cavities of both pleuræ contained some turbid fluid of a dark colour, resembling the fluid contained in the peritoneum, but there was a much larger quantity in the right than in the left. Both these serous membranes were increased in their vascularity. Anteriorly the lungs were pretty healthy, but posteriorly they were loaded with red, frothy serum, and the texture was easily broken down. Cavities of heart of natural size, and the walls of natural firmness; the internal membrane was deeply blood-stained, the blood being semifluid, with some small loose coagula. Aorta blood-stained, with a few patches of atheroma at its root.

CASE 6.—Mary Ann Wescott, aged sixty-three. Admitted May 30, 1845. Under Mr. H. C. Johnson.

Three P.M. There is a large tumour in the right femoral region, tender when handled, and some slight impulse is given on coughing. There is constant vomiting, and great anxiety of countenance. Pulse sharp, but slow.

She has had a hernia ever since she was fifteen, which often came down, but she was always able to reduce it herself. At two P.M., it came down while mangling, and she could not then reduce it. She was soon attacked with sickness, and came to the hospital. The taxis was applied without avail; she was put into a bath at 96 deg. Ice was then employed, and the taxis again failing, the operation was performed.

Twenty-six minutes past one P.M. On opening the sac it was found to contain a large quantity of omentum and the caput coli; the omentum adhered firmly to the sac all round; the stricture was not tense, and the gut and omentum were only slightly congested. There was great difficulty experienced in returning the gut; the stricture was dilated, and it was returned; but the adhesions of the gut to the omentum brought it down again. It was eventually returned and kept up. Two small vessels were tied, and light dressing and a bandage applied.

Half-past seven P.M. Pulse 80, natural; vomiting has ceased.

R. Hyd. chloridi, gr. ij.; ext. conii, gr. ss. p.h. ij.

31. Ten A.M. Passed a comfortable night, slept most of it; no return of vomiting; very little pain; only slight tenderness; bowels not open.

R. Sodæ bicarb., gr. xx.; magn. sulph.,  $\frac{3}{4}$  j.; syrupi,  $\frac{3}{4}$  j.; aq. distillatæ,  $\frac{3}{4}$  j. Sumat inter efferves. c. succi limonis recent.,  $\frac{3}{4}$  ss. 2ndis horis donec alvus respond.



Two P.M. Bowels not open; not much pain.

R. Hydrarg. chloridi, gr. ij. statim.

Ten P.M. Bowels have not acted.

R. Olei ricini, ʒss.

June 1. Passed a good night; slept most of it; complains of great pain in the abdomen, but it is not very tender; pulse frequent, and exceedingly weak. Omit. med. Beef-tea.

2. Ten A.M. Erysipelatous blush around wound; sutures cut and wound opened, to give vent to the pus which had formed in the sac, a small quantity of which only escaped; tongue dry and brown; pulse 130, very feeble. There is great prostration of strength, and anxiety of countenance. Bowel down in the same position as before the operation.

3. Eleven A.M. Appears to be sinking rapidly; is very weak and low. She had some beef-tea and a little wine and water; but the pulse became imperceptible at the wrist, the extremities cold, and she died at three P.M.

#### SECTIO CADAVERIS.

Body spare; lower extremities dreadfully deformed from rickets.

*Abdomen.*—The cavity of the peritoneum contained a quantity of turbid fluid of a dirty red colour, and in several places the free surface of the visceral serous membrane was smeared over with a thick, tenacious exudation of a similar appearance. The serous membrane itself presented but very slight traces of increased vascularity. The omentum was puckered and very much thickened, and passed in the shape of a round cord through the right femoral ring into the sac of a femoral hernia, to which it was firmly adherent. The omentum in the sac was ecchymosed and inflamed, and surrounded by foul pus, large quantities of which existed in the sac itself, and in the cellular tissue behind the sac, even to some distance in the neighbourhood, but no matter or traces of inflammation were observed in the cellular tissue of the iliac fossæ. Behind the omentum contained in the sac, and partially overlapped by it, were the cæcum, its vermiform appendix, and a small portion of the small intestine. The coats of the various parts of the intestinal canal were thickened and covered with lymph on the surface of the serous membrane. Several spots of ecchymosis existed in all the coats, but there was no softening. The viscera contained in this cavity were healthy.

*Thorax.*—The cavities of both pleuræ contained a small quantity of turbid fluid, also of a dirty red colour. The posterior part of the lungs was loaded with red, frothy serum, and the texture here was softer than natural; the anterior part was healthy. Heart healthy; coagula in all the cavities, and for the greater part fibrinous.

CASE 7.—Ann Dudley, aged sixty-seven; married; ten children. Admitted May 26, 1845. Under Mr. Tatum.

There is a flattened circular tumour, about the size of a large orange, at the umbilicus, to which an impulse is given on coughing; it can easily be reduced, but immediately protrudes again; there is constant vomiting of stercoraceous matter; pulse quick and weak; countenance anxious, and great prostration of strength. She has had an umbilical hernia for thirty years, which occurred during a difficult labour; it was easily reduced, and since then she has worn a truss, which for the last five years has been out of order.

19. She was attacked with great pain in the abdomen; was unable to bear the weight of the bedclothes; vomiting commenced, and has continued ever since, and the bowels have not been opened for that time. A surgeon has attended her, but the symptoms have not been at all relieved.

27. Nine A.M. The vomiting has continued all night; there is not much tenderness on pressure over the tumour, though she complains of pain in the part; pulse 120, small, weak, and scarcely perceptible; tongue red and cracked; mouth dry; and she is very low and restless.—Three P.M.: Vomiting increased; not much pain. The other apertures were carefully examined, and, no other hernia being found, it was determined to cut down upon the tumour; upon doing which, the gut and omentum were found to be connected by slight adhesions, but perfectly healthy; the umbilical opening would admit two fingers, and there was no

strangulation in this situation; the wound was brought together by sutures; a compress and bandage applied. The patient was very weak during the operation, and vomited several times. Spir. vini gallici, ʒij.—Half-past four P.M. Much weaker; pulse scarcely perceptible; there is no pain except a little smarting round the wound; she has cold, clammy perspiration, and vomits every ten minutes; has taken a little of the brandy.—Nine P.M.: Vomiting continues; pulse scarcely perceptible; extremities cold; has constant hiccup.

28. Continued much the same all night; bowels not opened; vomiting still going on, and she died at eleven A.M.

#### SECTIO CADAVERIS.

Body well formed, in good condition and extremely fat.

*Abdomen.*—The subcutaneous cellular tissue of the parietes loaded with fat. The tumour of the umbilical hernia was about the size of an orange, and flaccid; the skin for some way round discoloured. The parts contained within the umbilical sac did not present any unhealthy appearance, they consisted of omentum only, part of which was adherent to the ring. Some recently-effused lymph existed in small quantities upon the peritoneum covering the small intestines, and in the neighbourhood of the pelvis; but there was no serum in any part of the peritoneum. The small intestines were generally of a dark red colour, and distended with flatus, especially at the upper part. A knuckle of small intestine was found in the neighbourhood of the right femoral ring, through which it had to pass; and, in the attempt made to remove it, it gave way and the contents of the intestine escaped into the cavity of the peritoneum. The strangulated portion of the intestine was situated about three feet from the cæcum; the gangrenous portion measured about an inch and a half, and occupied the whole diameter of the gut. The femoral hernial sac was about the size of a small egg, inflamed, of a livid red colour, and filled with foul matter and fæces. The omentum and large intestines presented a healthy appearance. Liver healthy; kidneys coarse; capsules over adherent, and by their removal leaving a roughened surface; they were much congested. Spleen of natural size, but soft and grumous; capsule much thickened.

*Thorax.*—The cavity of the right pleura was partially obliterated by old adhesions situated at the back part of the lung. The apex of this lung presented one tubercle; and the lower lobe at the back part was loaded with red, frothy serum, and its tissue softened. The lower lobe of the left lung was extensively solidified by red hepatization at the back part. Muscular structure of the heart somewhat softer than natural. Coagula for the greater part fibrinous in all the cavities of this organ.

## REVIEWS.

*Commentary on the Hindu System of Medicine.*

By T. A. WISE, M.D., Bengal Medical Service. 8vo., pp. 431. Calcutta, 1845.

This is a production exceedingly creditable to the industry and judgment of its author. From amongst an immense store of scattered manuscripts, and from certain traditions of the East, Dr. Wise has contrived to cull an admirable collection of facts illustrative of the ancient and modern system of Hindu medicine and surgery. The object of the work is, chiefly, and most laudably, to place the origin of Oriental medicine in a proper light, so as to dispossess the minds of its present and future cultivators of a blind reverence for the gifts of antiquity, and to give them an inclination towards believing in, and contributing to, the advancement of medical knowledge. To the European practitioner its records will be sufficiently curious, as showing, in many instances, how widely diffused, and how implicitly believed, have been the maxims of Hippocrates; whilst in others, the peculiar philosophy and religion of the East are found infusing themselves amongst the doctrines of healing, substituting idle absurdities and superstitions for the simpler truths of unprejudiced observation.

The practice of dissection seems, from the earliest ages, to have been inculcated by the Hindus, and

with a precision and propriety which we scarcely surpass in the present day.

"All the Rishris are said to have recommended the dissection of the human body as proper and necessary."

Charaka, one of the munis, and physicians, say, that a practitioner should know all the parts of the body, both external and internal, and their relative positions with regard to each other. Without such a knowledge, he cannot be a proper practitioner.

Susruta, a Rishri of the highest rank, says that "a gogi (a holy man) should dissect in order that he may know the different parts of the human body; in order to possess an intimate knowledge of the diseases to which it is liable, and to perform surgical operations, so as to avoid the vital parts. It is by combining a knowledge of books with practical dissection, that the practitioner will alone attain an intimate knowledge of the subject of his profession. The body which is to be examined by dissection should be that of a person who had neither been destroyed by poison, nor had died of a long disease, as the structure of the body will be altered by the deleterious substance taken, or destroyed by the ravages of disease. In like manner, the person should not have been very old, and all the members should be in a perfect state." (P. 68.)

The observations on death, allowing for a little latitude of metaphor which we know to be a peculiar feature in Oriental composition, are very striking, and, for the most part, just.

"Death is the separation of the soul from the body. Man is like a coachman driving his own carriage: if this be well made, and he continue to drive cautiously, it will go a long time; but if he drive it upon bad roads the wheels will get injured, and the carriage will be soon worn out."

"Should he indulge too much in the gratification of the senses he will die like a deer, which is supposed to be deluded to its destruction by the sweet sounds of the lute which the hunters use; should he indulge in lust, like the elephant, in sight, like the butterfly in approaching the lamp, in smell, like the bee which is enclosed and crushed in the flower which has attracted it by its smell, in taste, like the fish by the fisherman's hook. So beware in indulging too much in any of the pleasures of sense, else it will lead, in like manner, to your destruction." (P. 80.)

"Should a bad woman, or one menstruating, touch a medicine, it will lose its qualities." (P. 128.) The supposition of a menstruous woman imparting unhealthiness or uncleanness to whatever she may touch, is a superstition that has prevailed from the earliest ages. In the present day, the lower orders of women think that, when in this state, meat will not "take the salt" if rubbed by their hands.

"Medicines given in too small doses will be like throwing a little water upon a large fire, that rather increases than diminishes it. In like manner, too large doses of medicine will increase the disease, and be liable to produce other diseases." (P. 128.) From this passage, the opinion of a heathen, and comparatively uncultivated, people, we think many of our affected *literati*, and men of science, may derive an instruction which they greatly need, and which would be well worthy of their acceptance.

Phthisis pulmonalis, the Hindus call "the prince of disease," and with good reason, say we. They curiously account for it, by a mythological superstition, that the "Moon married seven sisters, but, attaching himself to one, the others complained to their father, who punished the Moon by declaring that he should be afflicted with consumption. It is characterized by coughing, accompanied with bloody expectoration." (P. 321.)

The occasional causes of dysentery, as enumerated by the Hindus, reflect very much credit upon their accuracy of observation.

"Dysentery is produced by a variety of causes, such as exposure to cold; eating very cold articles of food in considerable quantities; eating much ghee and oily articles; very heavy or hot substances, or very thin or dry articles of food; eating several articles of food with contrary qualities, such as milk and fish, &c., or any kind of indigestible food causes this disease. In other cases it is produced by the food not being properly boiled or



## TO CORRESPONDENTS.

mixed, or being eaten at improper times; or when not properly seasoned; or in unusually large or small quantities. In some cases the disease is produced by poisons, great fear, or grief; by unwholesome drinking water; by much wine, and peculiar food, which thus affects certain persons; and by irregular or sudden changes in the seasons. Remaining long in the water while bathing, worms, deranged or constipated alvine, or other excretions, sometimes produce this disease." (P. 333.) We regret that our limits do not allow us to quote further from this interesting volume. It is really a compendium of antique medical curiosities, drawn up with much care, and evincing considerable talent and discrimination on the part of its author. To his industry is due a meed of unqualified praise, for many of the materials of which the volume is composed were exceedingly difficult of attainment, and the labour of selecting useful from useless parts, no trifling task when the Sanscrit language is the medium, reflects the greatest credit upon Dr. Wise. It is a work which cannot fail to prove most acceptable and useful amongst the Eastern practitioners, for whose enlightenment it is chiefly written; and to the profession of this country, who may take an interest in the subjects it comprises, we cordially commend it, as perhaps the best comment extant on Oriental medicine and surgery.

*Homœopathy Viewed in Connection with Medical Reform.* By HENRY R. MADDEN, M.D. Pos. 8vo., pp. 163. London, 1846.

This is a novel title to a book made up of the same sort of materials that have composed works of this class for the last dozen years. We have the same old fancies, the same old assumptions, the same extraordinary cures, illustrated in the same extraordinary cases, that are usually found in every department of the homœopathic library. The only air of *freshness* about the volume is the easy familiarity with which the writer takes the hand of the author of "Young Physic," and affectionately seems to say that they "should live and love together." The homœopaths are the easiest acquaintance-makers extant, if only a shadow of a chance is given them for foisting their familiarity upon you.

What has driven Dr. Madden into the ranks of quack practice, we cannot divine; because, although possessing a doctor's degree, we know that he was chiefly educated for a chemist, and was for some time employed as laboratory-assistant by the Smiths, the druggists of Edinburgh. We fear, however, that he knows little more of the doctrines of Hahnemann than of Hippocrates, for even in the preface of his book he tells us that "drug-giving is the only point in which the two systems are irreconcilable." (P. 11.) He evidently can have no idea whatever of the homœopathic doctrine of disease, in which the absurdity of Hahnemannism is even more conspicuous than in infinitesimal doses of physic. His knowledge of the homœopathic materia medica again, in comparison with ours, is funny enough, for he gravely talks about our complex and inexplicable polypharmacy! *Ex uno disce omnes* is well applicable to this volume: like all its predecessors in the same line, it is merely a bait for patient-catching.

*Some Account of the Epidemic Fever which Prevailed in Liverpool in the latter Months of the Year 1844.* By G. C. WATSON, M.D. (From the "Provincial Medical and Surgical Journal.") 1846, pp. 26.

This is a very excellent collection of cases, drawn up with considerable care, and commented upon with much tact and judgment. Dr. Watson has done good service to the people and the profession of Liverpool, by his judicious inquiry into the epidemic in question, and by connecting its rise and ravages with certain local circumstances, which a less shrewd or scientific observer might have overlooked.

We hope that Dr. Watson's well-timed example will be followed by other practitioners, whenever they may be placed in circumstances similarly favourable for contributing to pathology and practical medicine.

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WAKLEY V. THE MEDICAL TIMES.—In our next number we propose submitting to our readers a full account of this case, with a verbatim reprint of the affidavits of Messrs. William James Erasmus Wilson and Thomas Wakley.

Mr. Smith.—The Orthopedic Institution in Bloomsbury-square.

We have received a vast number of letters on the Provincial Association, some of which we hope to publish next week.

B. A.—We are afraid it is one of those cases to which no effective remedy can be applied.

W. B. (University College).—Mr. Renshaw has published an excellent work of the kind sought by by our correspondent, in Meade's "Manual for Students."

Chemicus.—Mr. Brande's work will shortly appear.

P. P.—Is much thanked for the hint. We have received the document recommended.

H. F. is mistaken about a part of the case; but will oblige us by communicating further. There is no doubt we shall ultimately be compelled to take the step named. We have long had the whole matter in readiness before us.

W. (Winchester) can be admitted to examination on the testimonials he has.

Mr. Norton (of Birkenhead) has been anticipated.

H. F. B.—Whatever the value the information might prove to be of, would be paid with pleasure.

J. P. (Southall) thinks, that as the FELLOWS and Physicians are chosen by the members of the Provincial Association, as their Council, nobody is in fault but the members—J. P. not showing how the Council is chosen, or how any fault of the members or anybody else improves a faulty organization. There is a threat, which is said to be authorized, added, "that in the event of our articles breaking up the Association, a new journal will be started, in opposition to the MEDICAL TIMES. We have only to assure J. P. that nothing would please us more. Will J. P. favour us with his name?—for we might lend a useful countenance to another journal. We can afford help, and would, to merit, not give it grudgingly, A Constant Reader.—The case of Judge Platt, and the slanders to which that eminent judge has been exposed, will be duly put forward.

M.D.—Sir Matthew Tierney died in October last, at Brighton. We are not aware of his age, but it must have been past seventy.

Mr. S. King sends us a very eulogistic notice of Dr. Knox's "Lectures on the Races of Men," lately delivered at Newcastle, to an audience, as Mr. King says, "thrilled into delight and ecstasy at the eloquence and learning of the distinguished lecturer." Coming from a non-professional, the notice is unfitted for our columns, although we agree with the writer that Dr. Knox is a "great acquisition to the corps of public instructors."

Mr. Christie's communication has been received.

A Student writes—"It must be a matter of surprise that the public journals should not have pleaded the cause of the Students at present in London, who are grievously disappointed at the failure in the means of prosecuting their anatomical studies,

and which they must consider as a breach of faith on the part of the teachers in the schools to which they have unfortunately entered. Not only are they deprived of the opportunities of becoming anatomists, but the time which is allotted to, and should be advantageously passed in, the dissecting-room, is but too often idled away and employed in the worst possible manner. Does this state of things at all depend on the apathy and indifference of the Colleges which undertake to preside over the interests of the profession, and to superintend education? Their examining bodies cannot, in fairness, reject a student for ignorance in that which it is not in his power to acquire. You will perform a friendly act to the London medical student, desirous of qualifying himself in his profession, by pointing out to him where he is to seek redress and assistance."

Many answers are excluded until our next number.

Some of our subscribers now in default will oblige us by forwarding the amount of their arrears forthwith. With all our aversion to publication, we have a ease or two on our books almost past further bearing.

## THE MEDICAL TIMES.

SATURDAY, NOVEMBER 21, 1846.

"Præjudiciis falsis mens libera, facilius, feliciusque, progrediatur in acquirenda vera medicinæ notitia."—SYLVIVS.

VINCENT PREISSNITZ, the author and hero of the present popular quackery, is thus described by Sir Charles Scudamore:—

"His countenance is full of self-possession; rather agreeable; mild, but firm in expression; with an eye of sense and a pleasing smile. The smallpox, and the loss of some front teeth from an accident, impair his good looks. His manners are sufficiently well-bred," &c. This lovely bit of literature, Dr. Forbes quotes at p. 436 of his article; and, in so doing, pays it a compliment that looks very much out of place. Without stopping to discuss the merits of the phraseology—which is funny enough, especially where the jocose Sir Charles talks about Preissnitz having an *eye of sense* (no doubt a very sensible eye); his *manners* (*query himself?*) being *well-bred*; amid other such literary eccentricities, which are not novelties with the author—is it not astonishing that any man, even Sir Charles Scudamore, whose earlier scribbling has been threadbare time out of mind, should write such nonsense upon such a subject? It may, perhaps, be objected, that nonsense is best suited to a subject like this; and so it might be, if the nonsense were complete; but, as its complement is not filled up, we would suggest that "the phrase would be more germane to the matter," were it made to comprehend an account of the precise length and colour of the water-doctor's hair; the particular shape and customary cleanliness of his nails, with his usual times of cutting them; whether he use a toothbrush, or a dentrifice, which ought to have been included in the description of his chief organs of mastication; whether he have corns, bunions, and such like, in common with ordinary mortals, and whether these have diminished in number and size, since he took to cold water; whether he use the latter for shaving; whether he sleep in a night-cap, &c. These are personal items of consider-



able consequence, and we cannot help thinking that, as the chronicler of living worthies, Sir Charles Scudamore would have added very much to his own reputation by taking careful notes of them.

Dr. Forbes says, the water practice of Preissnitz "originated in a succession of trifling accidents, by which he was led to employ bathing in a neighbouring spring for the relief of disease." (P. 436.) Well may the poet sing—"Who can tell what great things, from little things will rise?" Preissnitz made his marvellous "discovery" of cold water in the following way—Dr. Forbes does not tell it, but *we will!*—He was pleasantly engaged in the pastoral duties of haymaking; he broke two ribs ("volatile trifter!" as Pecksniff would say); a surgeon from Freiwaldau, stunned by the horrible nature of the accident, said that a fracture of a couple of ribs could never be repaired! Preissnitz, nothing daunted, made a solemn vow that he would try to cure himself. He leant against something to push his ribs outwards; swathed himself with wet clothes; drank plenty of cold water, and kept quiet! The consequence was—mark it well, surgeons, young and old—he was able to go out in *ten days*, and at the end of a year, was fit to take his rustic recreations in the field! (*Sic loquitur*, Captain Claridge.) Twelve months, and no more, for curing a couple of broken ribs, was testimony enough to establish the virtues of cold water in "knitting bones together." No wonder that its reputation was made forthwith! We have heard of a good many potential remedies, and notable cures thereby, but we have never met with a case that equalled the above, except the one we have now the felicity of relating. The joke is an old one, but its applicability is as genuine in the present as in any previous case.

A certain countryman lost his ass. Disconsolate at the circumstance, he applied to a celebrated quack doctor, who, like Preissnitz, had a remedy for everything, to prescribe for the restoration of his donkey. The quack, with all due formality, gave him a couple of cathartic pills, and insisted that they would lead to his lost treasure before he got home. Whilst journeying thither, the pills gave such impulsive signs of operation, as drove the poor fellow into the nearest wood for comfort. Whilst engaged, *basso-relievo*, sure enough the identical donkey came browsing near the lucky countryman, who forthwith recaptured his lost prize. In this case, it is plain the pills were at the bottom of it all; exactly as the cold water was in the case of Preissnitz's broken ribs.

Dr. Forbes says of this German wonder:—

"Success in these first attempts procured him a local renown, and he became the village doctor. From villagers his fame soon spread to patients of a higher rank, and Graeffenberg gradually became the resort of the hipped and the halt from all the surrounding district. By these his praises were sung louder and louder, untill all the world began to furnish him patients by the hundred. He now possesses an enormous establishment capable of containing several hundreds of patients, which is almost constantly crowded with ladies and gentlemen of every degree, and from every nation; while

his disciples and followers, as is well known, have spread themselves throughout the world, and maintain, in every country, numerous and flourishing establishments formed on the original model of Graeffenberg." (Pp. 436-437.) Does Dr. Forbes seriously chronicle the quack's success as a proof of his skill, and of the value of illegitimate practice? Does he think a man's merits, and the validity of his professional labours, are to be estimated by the amount of patients and profits he gets? If so, how lowly himself must feel in comparison with Preissnitz, Morrison, Cockle, and Widow Welch! Where *he* would not dishonour his noble calling by stooping dirtily to get gain, *they* clutch fees by wholesale:—which is morally the worthier? "The race is not always to the swift, nor the battle to the strong." Is it not more just that a man should be measured rather by what he *deserves*, than by what he *receives*? Recompense is no proof of the reward being merited!

If Dr. Forbes quote the *number* and *quality* of the patients that are duped by the German quack as a testimony in his favour, we beg to mention an old anecdote in contradiction of it. An empiric, who was fast making a fortune, called upon a legitimate practitioner who was fast losing one. The latter expressed his surprise at their relative good luck, when the quack, taking him to the door, asked him, after a pause, "how many people had passed by?" "Ten," was the answer. "Of that number," said the impostor, "how many do you suppose are fools?" "About nine," said the other. "Exactly so," observed the quack, "I get the nine, and you get the odd one."

If the personal consequence of patients is to be an evidence of skill, why not quote St. John Long, at whose first trial for manslaughter no less than *sixty-three* individuals of *rank* and *wealth* appeared to speak in his favour; and at whose funeral, himself having died of the disease he affected to cure, *many of the nobility attended*? If *numbers*, again, are to be any proof of the value of the system they follow, then must Mahomedanism be the superior of Christianity, and Paganism the superlative of both.

"It is scarcely too much to say, that he (Preissnitz) has so modified the application of water, and some very few other means, in a manner so ingenious as to render them no imperfect *nominal* substitute, at least, for most of the drugs in the Pharmacopœia." (P. 437.) This is one of the many sentences we meet with in the article in question, of whose precise meaning it is difficult to form an opinion. "No imperfect nominal substitute" does not mean a perfect nominal substitute; and if it did, a *nominal* substitute is *actually* no substitute at all! In such case, what wisdom is there in building a discourse upon any such doubtful or deficient remedial measure? If, on the other hand, the plan were better substantiated, and it was clear that cold water was not a *nominal* but an *actual* substitute for physic, why not write the latter down at once, and say with Clown, in Twelfth Night—

"Nay, I am all for waters."

or with Sangrado—

"Drink, my children; health consists in the suppleness

and humectation of the organs. Drink water copiously: it is an universal dissolvent; water dissolves all the salts. If the circulation of the blood be slackened, it accelerates it; if it be too rapid, it retards its impetuosity."

"In his first interview with the patient, after hearing sufficient to give him a rude insight into the locality and general features of the malady, Preissnitz proceeds to investigate its suitability to his method of cure. He does this by sprinkling the surface of the body with cold water, or witnessing the taking of a cold bath, and then watching the development of reaction. If this appears in a certain amount of activity, he pronounces the case appropriate for his treatment; if not, he advises the abandonment of all hydropathic intentions. We see no very decisive reason for pronouncing it a more fallacious guide, than the orthodox custom of feeling the pulse." (P. 437.) We really marvel that Dr. Forbes could write such a passage as this. It is the first time we have ever heard of blindly giving a man a remedy, in order to find out whether it may be suited to his case; and then arguing, (Oh! the logic of the thing!) if it do him harm, it is not suited to him; if it do not do him harm, it is just the "cure-all" for his ailment! Pretty therapeutics this, and orthodox pathology, truly. This is superseding diagnosis with a vengeance. Never mind getting more than a "*rude insight*" into a patient's case; try a remedy upon him; if he be half killed by it, send him home again, and tell him it will not do; if it don't hurt him, tell him to "keep it up," and he will be sure to get well! This is surely a "ready-made" system of clubbing pathology, diagnosis, and treatment together, and getting at the cause and cure of disease as easily as a man learns the day of the month by looking at the almanac. What a world of pulse-feeling, tongue-inspecting, fæces-smelling, urine-testing, stethoscopising, percussing, and so forth, this railroad pace of practice will save. Away with all the paltry paraphernalia of the schools; keep your watches in your pockets, and your hands too; nay, shut your very eyes; you have no need of any of them; try a patient as you would printed calico—*see whether he will wash*; if so, he is *fit for the treatment*, and, being treated, *he is safe to be cured*!

As we before said, there is no diagnosis in the present hydropathic quackery—they are all fish who come to the net—and fools too, the majority of them. No matter what the ailment a man may labour under; whether mild or malignant; curable, or defying all methods of cure; if the sufferer only show a certain small amount of "shivering and shaking" by being pitched into cold water, this is instantly pronounced his remedy, and it is advertised to cure him. So that it just comes to this: let the disease be what it may—cancer, consumption, spinal disease, stone in the bladder, amaurosis, anasarca from organic disease, a broken leg, or anything else you like—if the poor wretch be not starved past reaction, by being plumped into cold water, this is forthwith hailed as the vehicle of his cure! If absurdity or imposture can go beyond this, then will we never judge of weakness or wickedness again! And Dr. Forbes, of all men in the world, to quote such trash, and actually advocate its propriety! To tell us



that flinging a man into cold water is as orthodox as feeling his pulse, to discover his ailment and the method of treating it! Shocking, very!!

### THE EARLY-CLOSING MOVEMENT.

THE *Pharmaceutical Times*—a journal devoted to chemistry—has recently, in very forcible appeals, excited the attention of the chemists and druggists to the subject of the late hours which at present make the druggists' shops of the metropolis shine out the only midnight companions of alehouses and gin-palaces—making night hideous with red lights on one side, lending a countenance to "blue ruin" on the other. We perceive that these appeals have excited through the pharmaceutical community a very general interest, and that a commotion is at present showing itself among them, to achieve forthwith an apparent as well as real distinction between themselves and those disreputable traders who look towards the midnight hour for the means precarious of an illicit existence. Already several towns have taken the decided step of adopting the improvement, and our contemporary is already enabled to number among its proselytes to practical benevolence, Gravesend, Worcester, Leicester, Belfast, Bradford, and, we believe, one or two other towns of equal importance.

We are assured that the medical profession have an influence on this subject in two ways, which might be exercised with great and beneficial effect to this movement. First, the class of prescribing practitioners are growing every day more fortified in acting on druggists' late hours, and writing their prescriptions as though the legitimate time for compounding them was when respectable and well-meaning people usually find themselves in bed. We are asked, cannot this be avoided? We are sure it can; and we think we may promise that if the druggists only show themselves in good earnest in practically following out the sensible innovation they have been thus led to promote, the consulting practitioners of the metropolis will lend them not only their moral support, but every accommodation consistent with the full performance of their duty to their patients.

The second point in this interesting matter refers to medical practitioners who keep open surgeries. They are accused of even an excessive fondness for late hours, and that this improper concupiscence offers the great stumbling-block to a decent system of trading hours. We are far from adopting these severe accusations. There may be an isolated instance of some eager gentleman hoping against hope, and, in the struggle with fortune, trusting that success may crown an industry and diligence carried on to the destruction of his own happiness and health. But, as a general rule, we are quite sure that no obstruction to the improvement will be offered by medical men. They have, at least, an equal interest with pharmacutists in

the change, and we repeat, for this division of our body, the assurance we have already given for another, that, if the amelioration be actively and actually set about, there will be no obstruction or hindrance on the part of those gentlemen.

The movement is so much a matter of common sense, as well as social charity, that we can conceive no class of men, not under the exacerbation of passion, who would not wish it well—and if need be, and occasion offered, put even a friendly shoulder to the wheel.

### MEDICAL REFORM.

#### LETTERS

TO THE MEMBERS OF

#### THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

BY A GENERAL PRACTITIONER.

#### LETTER V.

GENTLEMEN,—Volumes of denunciatory cant have been written against *class* interests; and the support of *liberal principles* has been eulogized to satiety. This hypocritical affectation has become so prevalent, that you will scarcely find a man with sufficient moral courage, and sufficient confidence in his own good sense, to whisper a sentence in disparagement of the one or in defence of the other. I trust that I am endowed with an much liberality of feeling as my neighbours, and I have, perhaps, done as much within the limits of my opportunities to promote generosity, disinterestedness, and candour in our dealings one with another. But I am no bigot even to fine sentiment. My liberality in my political relations has consisted in advocating the cause of the defenceless general practitioners of this country, who have been trampled upon, betrayed, and insulted by the ruling powers of the College of Surgeons, and all other incorporated bodies. This is the liberality which, in the opinion of the Council of the Provincial Association, is my dishonour: let it be so; this dishonour shall be my glory.

The *class interest* of the general practitioners must be defended; and, although it may be graceful and conciliatory to talk about liberality, yet, if they act upon the impulse of this sentiment in forgetfulness of their own claims, and *before* they have gained an *equality*, they will be, most undoubtedly, *ruined*. There can be no mutual liberality between parties who are not equal in power. The physicians and fellows are now on the strong side: screened behind parchment bastions, mailed in ancient charters, and armed with by-laws and corporate privileges, they cannot be assailed with success: let them, therefore, exhibit *their* liberality, of which they make so much profession, and render *justice* to the general practitioners!

Justice is your sole claim; but you will never obtain it until you have so far strengthened your class interests that you can force your opponents to a conference upon *equal terms*; then, and not till then, can your liberal opinions be profitably exercised. The advocacy of *general principles*, under the euphonism "*liberal*," is always a dangerous proceeding where class interests are much involved; but when general principles can result only in the advantage of a particular class, their

advocacy by that class, and the high-flown assumption of merit with which such advocacy is accompanied are both selfishness and deceit. Such conduct must incur reproach. The Council of the Provincial Association have been, and are, acting this unworthy part; but their policy is revealed, their strength is broken, and they will gradually dwindle into powerlessness and contempt. A *quasi-liberal* union between the general practitioners and physicians and fellows can only terminate in the defeat and degradation of the former. It is, in fact, the sheep taking the wolf for their shepherd. Let the *general practitioners* strengthen their *class interests*. Their interests, in the truly liberal sense, are the interests of the whole profession.

In pressing upon your attention the necessity of establishing a powerful class interest for the general practitioners, I do not wish it to be understood that I deem that interest incompatible with the admission of fellows of the College of Surgeons or Physicians of Edinburgh into the ranks of those subscribing to the principles I have enforced. It is not because an individual is a fellow or a physician that he should be excluded from our communion, but simply because he will not acknowledge our principles. We must affirm the theoretical and practical unity of medicine and surgery, and the equal rights of the majority—the general practitioners—with those who are now their privileged rulers.

If any Scotch physician, or Fellow of the English College, will declare to the justice of our claims, let us receive him; he is essentially one of ourselves—a generous co-operator for the same end. This should not, according to the abstract justice of the question, terminate in a factious internecine war; but if *special interests* are alone advocated, as in the case of the Council of the Provincial Association, then the majesty of truth must be vindicated, the rights of the masses must be defended, and the enemies to universal justice must be for ever silenced. This is an imperative duty, and cannot be escaped.

To illustrate my sentiments, I may refer to the constitution of the Council of the NATIONAL INSTITUTE, as proposed in the list recently published in this journal. We find among that number several physicians and fellows of the College, but they do not appear there as the representatives of the special interests of the orders to which they nominally belong; on the contrary, it is on account of the indignation they feel at the gross injustice done to the general practitioners, by the sinister influence and misgovernment of their own order, that they have openly, nobly, and unhesitatingly ranged themselves on the side of the sufferers. Their sympathies are those of truly liberal and enlightened minds. They are the ornaments of the profession, and a living reproach on the corruptions from which they seek to be extricated. To such men I shall be always glad to do honour. That noble-hearted man, Mr. Pennington, the President of the National Institute, is himself the *Senior Fellow* of the College of Surgeons. Unquestionable eminence can always condescend to be the advocate of truth; unmerited honours are naturally allied to falsehood, meanness, and wrong. There are very few men who can afford to be honest. As in the business of society, many men are generous before they are just, so in politics doctrinal liberality is too often accompanied by practical injustice.

It is now my intention, gentlemen, to track the steps of the Provincial Association in reference to a system of registration for the medical practitioners of this country. There can be no question of the propriety of such a measure in the abstract, but very serious questions may arise as to the de-



tails, provisions, and bearings of any particular measure intended to accomplish this end. My immediate business is, however, with the Council of the Provincial Association.

The infamous DERBY resolutions, upon which I commented last week, contain the following:—"That, further to ensure the object of a sufficient uniform primary qualification for every medical practitioner, without which the equal right to practise every department of the profession ought not to be conceded, it seems desirable that the diploma of *licentiate of medicine* should be required of all who may hereafter propose to enter the profession, and previous to their being entitled to claim admission to register in any other grade."

Before I comment on the substance of this resolution, suffer me, gentlemen, to stigmatize, in one sentence, the vile verbiage, the libellous caricature of the Queen's English, contained in the phrase, "entitled to claim admission to register." This unintelligible verbosity, apparent in all the documents of your Council, is, no doubt, intentional.

There are two points in this resolution that demand our notice: first, that the Council assented to that portion of Sir James Graham's scheme which deprived you of all corporate rights, nay, *even of a corporate existence*; and, secondly, that they petitioned that the register should be framed *in grades*. If these two conjoint recommendations had been carried out, I do not hesitate to say that the general practitioners would have been loaded with more wrong and disgrace than ever was inflicted on them by the new charter of the College of Surgeons, and that the Council of the Provincial Association would have been the most unscrupulous, corrupt, and treacherous advisers to whom any body of men ever intrusted their interests. The fact that these recommendations were not carried out does not relieve them from this charge. I cannot charge them with ignorance, for, if they did not know better after all their experience, they must have been worse than idiots. I wish it was in my power to frame any excuse to exculpate them from the odium of such conduct.

After a lapse of two years, the question of registration is again brought before the profession in a new form; and, although it is in opposition to the former opinions of the Council, yet, so anxious is their desire to get *any* measure passed through Parliament that shall give them a legal standing, that they feel themselves quite happy to swallow their leek, and urgently support the dishonest manoeuvre of the promoter. For several weeks your journal is filled with encomiastic twaddle on the provisions of the Bill, which, if your Council were truthful and consistent, they cannot believe to be good. Admitting in them, however, the privilege of changing their opinions in deference to honest experience, let us examine a little further into their conduct, as well as into the merits of the measure for which they profess so violent an affection.

At the last meeting at NORWICH, DR. HASTINGS (!) moved, and DR. STREETEN (!) seconded, a petition praying for the passing of the Registration Bill. Mr. PAGET, of Leicester, one of the few gentlemen whose honourable character can dignify a dishonouring title, was a dissident, and, in consequence, an alteration was made in the petition, by which the Legislature were entreated to pass "some bill to the same effect"; and thus the evil tendencies of the petition were averted. The teeth of the serpent were extracted, and it was made powerless.

The next proceeding of the Council on this question is heralded in a leading article of your Journal, bearing date Oct. 21st, and runs thus:—"We are authorized by the Council (!) of the Pro-

vincial Medical and Surgical Association to state, that it has been determined to present a memorial on the subject of the registration of medical practitioners to the Right Honourable the Secretary of State for the Home Department; and that the propriety of soliciting an interview for a deputation from the Association is under consideration." *Who were the members present at this meeting of Council? Where did it meet? Were the Council duly summoned? Was the Reform Committee consulted? Or was the Council a mere private meeting, held at Worcester, for purposes that would not receive the sanction of a general meeting of the members? These questions must be answered before this meeting of the Council can be considered as anything else than a "hole-and-corner" intrigue,—a plot arranged by a few interested members to carry the Registration Bill through the House before the next general meeting.*

The memorial proposed sets out with declaring the necessity of obtaining "a sufficient primary and equal qualification in medicine, surgery, &c.," and states, "that for this purpose, a registration of *all such qualified* medical practitioners, on some simple and comprehensive plan, should *immediately* be had recourse to."

Now, gentlemen, this is a mere sophism: it by no means necessarily follows that an equal educational qualification shall succeed to a general registration. Perhaps the reverse would be the case. The horse may draw the cart, but the cart cannot draw the horse. If an equal standard of qualification were established, it would be a valid ground, on the part of the Scotch graduates, for requiring a general registration; but if these gentlemen are placed on a legal register *first*, what interest will they have in elevating their standard of qualification? On the contrary, self-interest—the spring by which the movements of all corporate bodies are regulated, would dictate an opposite policy. Seeing that their members are already legally recognised in England, it would be their interest to keep their standard as *low as possible*, in order to attract students to their lectures, and augment their collegiate resources. They would flourish by the decay of British schools. They would grow rich by our ruin. Our hospitals, metropolitan as well as provincial, would be deserted, our lecture-rooms converted into warehouses, our professors reduced to gentlemankindlike pauperism, science would cease to be cultivated, the march of medical art would be arrested, and everything relating to the science of our profession in this part of the empire would exhibit a dreary, dead waste of ignorance and apathy. As a consequence of this, the standard of qualification would be deteriorated, the respectability of the general practitioners injured, and the public health abandoned to the mercy of superficial, half informed medical adventurers. This is the *only direct* consequence, in an educational point of view, that can result from this scheme of registration. We have never yet witnessed any disposition on the part of the Scotch Colleges to elevate their curriculum at the expense of their interests, and we may confidently rely upon it that we never shall.

The truth is, gentlemen, the Council of your Association have clearly but one object in view—their legal recognition. Their intense selfishness on this point has recently developed itself in its most repulsive characters. All decency has been scandalised. Hitherto they have been modest or prudent enough to advocate a uniform standard of qualification, together with a general registration;

but now they are willing to sacrifice every other object, to invalidate every other redeeming and counterbalancing principle, to throw overboard at once and, for aught they care, for ever, the most valued interests of their members to secure a single benefit for themselves. What may be afterwards within the range of possibilities nobody knows; but if you can be seduced by the persuasions of your Council to trust in the vicissitudes of futurity, and abandon the actualities of the present, you are less informed upon these matters than a four years' agitation would place to your credit. Let the Council understand that empty profession and dark intrigue can no longer impose on the good sense of the general practitioners of this country.

Has there been any compact entered into between your Council and the proposer of this measure? Two years since this individual reproached your Council for what he is now assisting them to carry out; they were then mutual enemies; whence comes this sudden agreement? They are now praising each other with all the unction of reconciled affection, uniting their arms in an eager fraternal embrace, and swearing common cause against all disturbers of their unwonted harmony. The alliance is, doubtless, an honourable one, and I hope that, like another *entente cordiale*, we shall not suddenly see a disruption of the ties. However, the consummation has declared the character of both parties; two hypocrites never join issue until they find their hypocrisy no longer profitable. When they are known they must necessarily associate.

But such of you, gentlemen, as are members of the College of Surgeons, have a yet stronger interest that this Registration Bill shall not become law: for in that instant the charter of the College, with all its iniquitous injustice, receives an irrevocable confirmation. The Fellows will register as Fellows, you as members, and your chains will be only riveted the faster by every annual registration: usage, habit, precedent, all will establish your degradation.

The SCOTCH GRADUATES desire this bill to pass, to acquire legal privileges; the FELLOWS of the College of Surgeons, to surround their present insecure position with the bulwark of legal enactment. This is the unmitigated mischief of this bill—it is the poison in an undiluted, concentrated form; you can never accept the chalice. There would be more difficulty in passing this bill than one of more extensive scope and bearings; for it deals out injustice to all parties, without even a pretence to compensation. The whole medical question must be embraced, so that, at the same time that each party concede something to the common good, right and justice shall be equally distributed. Demand this, associate for it, and you will get it; but if you submit yourselves to the paltry manoeuvres of a narrow-minded and exclusive Council, or lend your sanction to the artful expedients of a pettifogging politician, you will for ever remain the victims of that double-headed monster—*corporate injustice and professional disunion*.

I have the honour to be, Gentlemen,

Yours, very faithfully,

VOX VERITATIS.

BATH PATHOLOGICAL SOCIETY.—(Established Oct. 5, 1846.)—Office-bearers for the first year:—President, Mr. Norman; Vice-president, Dr. Daniell; Treasurer and Secretary, Dr. Davies; Council—Mr. George, Mr. Ormond, Dr. Edwards, Mr. Godfrey, Mr. Waldron, and Mr. Field.

HOSPITAL STAFF.—Assistant-Surgeon William Home, M.D., from the 26th Foot, to be Staff-Surgeon of the Second Class, vice Garret, deceased.



## MISCELLANEOUS CORRESPONDENCE.

## THE DEFENCE OF THE PROVINCIAL ASSOCIATION.

[To the Editor of the Medical Times.]

SIR,—I have for some period taken in your journal, because I have thought it the best of the weekly medical periodicals, and because, also, I have approved of its independent spirit. But lately you have fallen into the disreputable habit of bespattering everything and everybody with abuse. Such a system may gratify a few, but it cannot please the many, and is only calculated to lower your publication in the eyes of all right-minded individuals.

Your letters, now in course of publication, by "Vox Veritatis," are, to say the least, perfectly disgraceful, and will (as they ought) do you much mischief. I have really heard several gentlemen say, that if the pages of the *Medical Times* are to be garnished with such rubbish as letters from "Vox Veritatis" and "Unus Quorum," they will not any longer give such a paper encouragement. Nor will I; nor will any one, I should hope, who is anxious to uphold the dignity of his profession. The effusion from the latter of these disguised gentlemen (indeed, it is well they should be disguised!), appearing in your paper November 7, is fit only for such a publication as the *Satirist*. If it were hut sharp and witty it might pass; but that such disgusting, illiterate abuse should find a place in a journal which boasts so much of its gentlemanly conduct is truly astonishing. Do, Sir, give up this system. Let your journal remain respectable, and continue to enjoy its hitherto well-earned reputation. I speak, without the least ill-feeling, only on your own account: for what can it matter to me personally whether you act rightly or wrongly?

Believe me to remain, Sir,

Your obedient servant,

E. S.

\*\* This letter calls for a few remarks.

1. It comes bearing the postmark of WORCESTER—the camp of the assailed. Are we to look upon it as the official reply?

2. If we are, it comes with the disadvantage of being unauthenticated. We have no guarantee for the sincerity of its opinions, or the truth of its "facts."

3. In this respect, it stands far worse than the letters which it abuses as coming from "disguised gentlemen." The "disguised gentlemen" communicated their names to us in submitting to us their opinions, and our readers have, through us, the guarantee of their good faith. E. S. not only "disguises" himself to the public, but to us.

Finally. The abusiveness attributed to our correspondents is surely out-Heroded—with the addition, let us say, of much injustice—by that of their monitor. He has spoken of them in terms untrue—as he must have known if he had read them—for, so far from deviating into private scandal or personal vituperation, the letters have been confined to strictures on public conduct, and public systems, with the least possible reference to the individuals bearing their responsibility. If we have deserved so well of the profession as our correspondent affirms, by the general character of our management, we take the liberty, on the strength of the merits which such management gives us, to claim additional credit and confidence, on the score of having published the letters thus assailed. We are sure they will be most useful to the profession.—Ed.

## THE LATE CASE OF MILITARY FLOGGING AT HOUNSLOW.

COURT OF QUEEN'S BENCH, THURSDAY, NOV. 12.

The Attorney-General said, I have to move your lordships, at the instance of Mr. Wakley, a member of Parliament for the borough of Finsbury, and coroner for Middlesex, for a rule call-

ing upon the printers and publishers of a newspaper called the *MEDICAL TIMES*, to show cause why a criminal information should not be filed against them for a libel published in that paper of the 1st of August last. Your lordships will perhaps recollect that an investigation was held, a short time since, on the body of a person called White, a private soldier in the 7th Hussars, who died in the Hounslow barracks. The attention of Mr. Wakley, as coroner, was directed to the death of that individual by a letter which he received from a minister of the neighbourhood, the Rev. Mr. Trimmer, and also a magistrate. Until the receipt of that letter Mr. Wakley was not aware of the death of White, and consequently had no means of holding an investigation on his body. Upon the receipt of the letter he directed the Rev. Mr. Trimmer to communicate with the constable of the district, for the purpose of making the necessary inquiries, in order that he might afterwards furnish him (Mr. Wakley) with the information he might obtain, so that he might determine whether it was necessary to hold an inquest or not; but before that letter was delivered the constable came to the residence of Mr. Wakley, and stated that, from the rumours which were then prevalent in that neighbourhood, it would be necessary to hold an inquest on the body of the soldier. He stated also that he came to town by the direction of the Rev. Mr. Trimmer and of another magistrate (Mr. Pownall). Upon the receipt of this information, Mr. Wakley, as was his duty, issued directions to the proper officer for holding an inquest on the body, and on the jury assembling and viewing the body, preliminary to the investigation, they ascertained that excoiations of the body had taken place, but that the spine, and the muscles about it, had not been properly examined, and they requested the coroner to appoint a person whom he thought fit for the office, in order to make an examination. He accordingly named Mr. Day, who resided in the neighbourhood. When the jury had met on the second occasion, it was found that Mr. Day had not, as the jury thought, made a thorough examination of the body, particularly about the spine and adjoining muscles, and they asked Mr. Wakley to nominate another. On his way to London he met Mr. Wilson, a gentleman of great surgical eminence, whom he appointed to examine the body. On the 1st of August the inquiry was adjourned. Mr. Wilson and all the medical men gave their evidence on the 1st of August. On the 3rd, the jury were to hear the summing up of the coroner, and arrive at their verdict. The libel appeared in the *MEDICAL TIMES* on the 1st. The learned gentleman then read the alleged libel, which was headed with the following passage from "Lear":—"See how yon justice rails upon yon simple thief. Hark, in thine ear; change places; and hand-dandy, which is the justice, which is the thief? . . . Get thee glass eyes; and, like a scurvy politician, seem to see the things thou dost not." The article containing the libel then proceeds to advert to the proceedings of the inquest, and observes that, "as a whole, such a gross, perverse, and hideous caricature on English administrative justice, in the name of justice, we never witnessed. Beyond the unavoidable good of subjecting to public animadversion the Vandalism of all military flogging, there is not a feature presented to us judicially in that investigation, that commands respect, or deserves aught but censure or contumely. There was something absolutely execrable in the coroner's farcical impersonation of judgeship. Legal axioms, and the spirit of English jurisprudence, make the judge the counsel of the accused; here the coroner had no thought, word, or act, save for inculpation. Coroner Wakley seemed like a man compromised to infamy, or worse—personal unhappiness—if it should be proved that White died without murderous guilt in some survivor. This medical magistrate would evidently not conceive the hypothesis that some medical practitioner had not betrayed the trust of humanity, and proved himself an assassin. The anxiety of the merciful president of this dignified court appeared to be to

clothe every act with criminality, and strip every circumstance of innocence. He coaxes private soldiers into conjectural charges, and tries to bully medical witnesses out of honest convictions—all to throw blood at the door of a worthy medical brother. He suggests insinuations, applauds, encourages, assaults, twists, twirls, and manœuvres in every shape, form, and direction, to conjure up against an honest practitioner a fictitious semblance of murder! Why all this? Why this reckless sacrifice of good men's repute and peace of mind? Why this needless display of ingenuity to get up against Dr. Warren, or failing him, Colonel White, or failing him, the farrier, a colourable semblance of murder? There is, of course, but one reply—Wakley wants a public sensation to help his fortunes in a forthcoming election. There is something to excite the gravest reflection in this frightful prostitution of a popularity-seeking politician. There is no knowing where it may end, or to what perils it may carry us. The very needs of a fiercely competing press, deprived of great political events for discussion, yet requiring for successful sustenance the aid of strong popular sensations—the very needs of such a press suggest fearful dangers from this unscrupulous use, by judges, of the machinery of law to the purposes of political emergencies. Not only is the whole idea of administrative justice brought into disrepute by the incongruous melodrama, but an illicit means of popular power is evoked, which, supported by anything like character and sustained ability, would lead to very great public mischief." Such was the libellous attack made in the columns of this publication, on the moral character and the motives of Mr. Wakley; and he (the Attorney-General) submitted to the court that a rule should be granted.

The Court: Take a rule.

ADMIRALTY, Nov. 9.—Dr. Gilbert King, M.D., Deputy Inspector of Naval Hospitals and Fleets, to be Inspector of Naval Hospitals and Fleets. Retired Deputy Inspectors of Naval Hospitals and Fleets, to be Retired Inspectors of Naval Hospitals and Fleets: Dr. James Veitch, M.D., Mr. William Colvin, and Dr. James Scott, (B) M.D.

## MORTALITY TABLE.

For the Week ending Saturday, Nov. 14, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES . . . . .	916	1000	968
SPECIFIED CAUSES . . . . .	914	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases . . . . .	150	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat . . . . .	88	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses . . . . .	154	151	157
Diseases of the Lungs, and of the other Organs of Respiration . . . . .	282	313	294
Diseases of the Heart and Blood-vessels . . . . .	39	29	27
Diseases of the Stomach, Liver, and other organs of Digestion . . . . .	78	70	72
Diseases of the Kidneys, &c. . . . .	6	8	7
Childbirth, Diseases of the Uterus, &c. . . . .	19	11	10
Rheumatism, Diseases of the Bones, Joints, &c. . . . .	14	6	7
Diseases of the Skin, Cellular Tissue, &c. . . . .	4	2	2
Old Age . . . . .	53	66	67
Violence, Privation, Cold, and Intemperance . . . . .	27	27	26



No. 374. SUMMARY. Nov. 28.

PROGRESS OF MEDICAL SCIENCE, INCLUDING  
CHEMISTRY AND PHARMACY—

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PROGRESS OF MEDICAL SCIENCE,  
INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

Meeting of Nov. 16; M. MATHIEU in the Chair.  
THE GUN-COTTON.

This subject continues to occupy the time of the academy; and in the debates to which it has already given rise, it appears to us that the name of Professor Schönbein is passed over in a very unceremonious manner. M. Pelouze stated that one of the most dangerous branches of fabrication was the manufacture of detonating caps for firearms, the fulminate of mercury which they contain often exploding during the operation, and not unfrequently inflicting severe injury on the workmen. Now, with gun-cotton or gun-paper, &c., by a very simple process, capsules might be prepared; the whole secret consisted in retarding slightly the combustion of the paper or cotton, by the addition of another substance, such as powdered charcoal, or sulphur, in a very small quantity, and placing the mixture in a copper cap. M. Pelouze prepared before the academy two capsules, and showed that they detonated fully as well as those manufactured by the usual method. Their preparation was unattended with any sort of peril—a circumstance of some importance, when it was recollected that not less than 750 millions of detonating caps were yearly fabricated in France, by a method which placed human life in constant jeopardy.

M. Barreswill and Dr. Bernard had repeated the experiments which had already been made on the digestibility of gun cotton and paper. They had fed mice upon these substances exclusively, and remarked that they were not by any means modified in the stomach or intestines, but that they even retained their deflagrating property.

FISTULOUS GASTROTOMY.—M. Sédillot forwarded a continuation of his former paper on this subject. (See *Medical Times*, p. 361, vol. 14.) In his present communication the learned Professor merely enumerated the varieties of œsophagian disease, or imperfections of the primæ viæ which might warrant the performance of gastrotomy, and brought forward fifty cases collected from various authors, in which life would, perhaps, have been prolonged had the operation been resorted to.

VARIOLA.—Professor Piorry, for the purpose of preventing the scars consequent upon smallpox, recommends the application of blisters to the face during the eruptive stage of the disease. The Professor asserts that by this method the eruption will be milder, and the formation of scars, which he attributes to the incarceration of pus under the epidermis, altogether prevented. M. Piorry had also directed his attention to another point connected with the treatment of the malady. From numerous *post-mortem* examinations of persons who had died during the progress of smallpox, the Professor was led to think that one of the most frequent causes of death might be found in the presence of a confluent pustular eruption on the mucous membrane of the larynx, by which the

glottis was obstructed in such a manner as to bring on suffocation. In such cases M. Piorry would not hesitate to perform tracheotomy; in fact, he had performed it once under similar circumstances, and the patient had been considerably relieved by the operation from the progress of the malady: the case, however, terminated unfavourably.

ARSENIC IN FERRUGINOUS SPAS.—On a former occasion we reported M. Walchner's discovery of arsenic found in combination with preparation of iron in many ferruginous wells. The waters of Passy have been tested with care by M. Flandrin, and by M. Chatin, but no arsenic was detected in their deposits. In the gardens of Trianon, at Versailles, a ferruginous spring has been found to contain arsenic, although in minute proportions. It would seem that arsenic exists only in mineral wells combined with the carbonate, and never with the sulphate, of iron.

## ACADEMY OF MEDICINE.

Meeting of Nov. 17; M. ROCHE in the Chair.

THE PLAGUE.—After a long and uninteresting debate, M. Guéneau de Mussy moved, as an amendment to the fourth and fifth sections of the seventh conclusion of the Commission, that the practical details of quarantines and the regulation of their length be left to the administration. The amendment was carried, and the academy formed into committee at half-past four.

CANCER OF THE LIPS—ETIOLOGY, BY M. RIGAL.—In a recent clinical lecture M. Velpeau protested against the opinion, still entertained by many, that cancer of the lips is usually the result of pressure of the pipe on the lips. M. Rigal attributes the malady to the irritation caused by a projecting tooth; and remarks that persons in the habit of using the pipe are precisely placed in that condition, by the slow but certain action of the foreign body on the teeth, which usually close upon it. This would, to a certain extent, account for the greater frequency of the disease on the lower lip: for the same reason M. Rigal asserts, that when cancer of the lip occurs in persons whose lower jaw projects beyond the upper, it is on the superior lip that the cancerous ulcer is observed to break out.

## FACULTY OF MEDICINE OF PARIS.

OPENING LECTURE, DELIVERED BY PROFES-  
SOR DUMAS, on Monday, Nov. 16.

Gentlemen,—Some few months since, when I was chosen to address you on this festive occasion, it was with joy that I accepted the duty imposed upon me. The prosperity of the school, the progress of science in the present and in the future, formed an interesting picture, which I felt it a pleasant task to spread before your eyes.

The addition of a new museum to your anatomical collection, the improvement your studies must derive from the new system of examination, the preparation of a law on the practice of medicine, and, in order not to swerve too far out of the pale

of that branch of instruction confided to my special care, the flourishing condition of organic chemistry, from which the healing art derives daily a more direct and a more solid support—such were the texts which I congratulated myself upon having to develop. But, alas! a cruel and sudden loss throws a deep gloom over a ceremony which was destined to awaken only pleasant recollections. August Bérard was in his forty-fifth year; his first years were spent in poverty, and it was only by arduous labour and an uncompromising industry that he won his first laurels, and was named interne,—the first on the list. In subsequent *concours* he was not less fortunate, and three times successively he was crowned at the *Ecole Pratique*. For himself and for his brother, this was indeed a happy time. And yet, what obstacles they had to meet—how many exhausting and murderous struggles they had to take share in. It is a melancholy destiny, my young friends, that in which the mind, constantly stimulated by the contemplation of facts, and of the progress of science, hurries onwards to fresh discoveries, and, reined in by our system of *concours*, constantly is thrown back upon the study of the past! Whoever yields his life to its chances, condemns himself, perhaps, to the tortures of Tantalus. The discoveries which he feels dawning upon his mind throw only transitory gleams of light upon the inmost depths of his soul, and so soon as his imagination, seduced by their brightness, rushes towards them, it is roughly cast back upon earth by the cold realities of the struggles of the morrow.\* Bérard has left two excellent memoirs: one on cold irrigations in the treatment of wounds, another on the starch bandage applied to fractures. These two papers are united by a common thought. Both were inspired by one idea—that of limiting local injuries to the affected parts, and of preventing wounds from degenerating into disease. Bérard's object was to diminish as much as possible the share of the knife in surgery; and, on the contrary, to give full play to the natural powers of life. Life is movement; repose is death. This maxim is not only true when applied to the universality of beings, but is true for the most minute particles of each organism. That incessant molecular motion, by which our textures are modified, our liquids displaced, and changed in composition—that molecular motion, the fundamental character of life, ceases only with life itself. In the reunion of fractured bone, of divided tissues, of lacerated organs, the duty of the surgeon is to direct this molecular motion, to prevent it from straying from the only path which leads to health. In the rapid cure of a wound by first intention, that generating power shows all its strength; in ankylosis of a joint it displays its dangers in the vast abscesses which so often prove fatal—one of its

\* It is not uninteresting to find the *concours* thus appreciated by a professor of the faculty of Paris—by one who owes his own elevation to the system.



most frequent deviations. A. Bérard sought to prevent these deviations—to ward off these dangers—to wield that power. Need I speak of the six remarkable theses defended by Bérard in this amphitheatre? Each has its place in the practitioner's library. One of them, however, I must refer to: it was that which he wrote in 1836, during the *concours* for the chair, left vacant by the death of Dupuytren. In twelve days Bérard condensed, in a masterly work, all the elements of surgical diagnosis. He showed that the diagnosis of surgical diseases is easier than that of purely medical affections; he traced its progress within the last years, and does not hesitate to assert that it may attain as much perfection as any other branch of human knowledge. But he adds, that even admitting the science of diagnosis to be founded upon a basis which cannot be shaken, still, in the application, amongst the causes of error inherent to human weakness, it would be necessary to take into account the illusions produced by two opposite and yet frequent tendencies of the mind. In the contemplation of facts a young and bold understanding is struck with their points of contact; if the observer is older and more cautious he will remark their differences. In the first case he may appear rash; in the second over timid. Ingenious minds, ardent imaginations, will be subject to the former failing; calm, analytical understandings will not escape the latter without difficulty. But, after having mentioned the dangers of these opposite directions of the human mind, let us also point out the advantages which they yield to men of genius.

Is it not because he felt the importance of analogies that Geoffroy St. Hilaire has founded the philosophy of anatomy, and succeeded in classifying in a natural order even those monsters and *lusus nature* which seemed independent of all rule, of all control? Is it not, on the contrary, by carrying to its farthest limits the study of characteristic differences of beings, that Cuvier was enabled to trace with a steady and prophetic hand the admirable plan of researches in which he announced that, with a few fossil remains, he could reconstitute not only the ancient population of the globe, but even discover the exact chronology of its past revolutions! Bérard was not born under a happy star: his childhood was all but abandoned; his life short; his death a torture; he owed everything to industry—to firm and persevering industry—nothing to circumstances; and at the close of these lines consecrated to him let us say, that to appreciate the full value of his life, it is necessary to look towards the future career he had carved out for himself, rather than towards the difficulties which he had overcome.

Obliged to give up my former intention of initiating you to the great chemical schisms of the present day, I must be satisfied with a broad sketch of the course confided to my care. The human soul—eternal, immaterial, and free; the imponderable powers in its possession; organic matter formed by its breath; and the association of mineral elements with the latter:—four great aspects of life; four great problems of death. The Church has solved the last, by the terrible and sublime phrase—“*Memento quia pubescas, et in pulverem reverteris.*” Modern chemistry has answered the third, by showing that in air are contained the elements of all organic matter; that plants are the children of air; that animals are derived from plants; that all organic substances, in a word, represent on the earth condensed portions of air. Chemistry also, smiting the pride of man, might say, Remember thou art but vapour, and unto vapour thou must return.

Let us inquire, from physics, what are the forces of life? Doubtless light, heat, and electricity play their part; the Promethean torch is not a mere plaything of the infancy of the world, and under that imagery are concealed many philosophical truths. Although it is now-a-days certain that magnetism and electricity constitute one and the same fluid; although it is highly probable that heat, light, and electricity are connected by the closest ties; still in this sanctuary of observation and experiment we must wait, before we can admit the unity of the forces of nature, until an Oersted, an Arago, or a Faraday shall, with electricity, have

produced nervous power, and with nervous power have generated electricity.

To speak to you of the nature of the soul, I should require the austere eloquence of a Bouillaud, or to depict its passions, the analytical talents of a Gerdy. Mine is not so lofty a task; I only wish to draw your eyes towards a neglected corner of the vast science of medicine. In the southern seas, islands gradually rise from the bosom of the ocean; at first limited, they gradually increase in size; they are formed by polypi and coral rocks, and soon give birth to an active vegetation; arable ground accumulates in their centre, animals appear, and man lays the foundation of a new empire. What is the cause of this active development of the polypus from within outwards? Do not seek for it in the laws of the organism, or in the instincts, of nature. The polypus requires calcareous matter to build his dwelling, and separates the calcareous salt from sea-water, particularly in the centre of the growth; hence the eccentric development of the island.

The sublime simplicity of the means employed by Nature to attain her ends is full of grandeur: rain-water loaded with the carbonic acid of air falls upon our calcareous hills; runs into our rivers, and is by them carried to the ocean; in the sea, regular currents convey it away; it is seized by microscopic animals, and an imperceptible stone is added to the edifice of those new empires in preparation for the future destinies of humanity.

Phosphate of lime is the principal element of the skeleton in all superior animals; analysis discovers it also in inferior beings, and even in plants. Phosphorus is present in cerebral and nervous matters; it is found in milk and in analogous fluids. But phosphorus and phosphate of lime are so rare in nature that an illustrious chemist, struck by the difficulty with which it is furnished to plants by the soil, remarked that Rome declined from the day that Sicily, having exhausted its phosphate of lime, could no longer yield the corn required by its immense population. The phosphate of lime must, therefore, return to the soil. Behold what simple and ingenious means are employed by nature to accomplish this purpose: taken from the soil by the plants, the phosphates pass into the body of herbivorous, and thence into the system of carnivorous animals, where they are concentrated. The animal dies; a fly lays her eggs in the dead body; thousands of worms arise; fed on the remains, they soon disperse in every direction the phosphates, when they have undergone their metamorphosis, and acquired wings in their turn. This office of dispensing the phosphatic salts is not only accomplished by flies, but by the jackal, the dog, the hyena, &c. This is not enough: abandoned on the soil, bones become gradually disaggregated, and disappear. How is this accomplished? From my experiments I am inclined to believe it is by the agency of water loaded with carbonic acid that the phosphates are dissolved, and that the last vestiges of animal life are removed. It is, you know it well, carbonic acid which constitutes the chief nutriment of vegetable matter; it is truly an admirable mechanism, at the same time that carbonic acid is destroyed in the leaf, the phosphate of lime becomes again insoluble, and penetrates into the intimate structure of the plant. What is its function? To give to azotised matter resistance to the dissolving action of water; to give stability to the textures, as it does to our bones, and in the same way to protect all the vegetable tissues.

Perhaps we should conceive that when carbonic acid, decomposed in the leaf, liberates phosphate of lime, this salt coagulating vegetable albumen, produces the first cellular rudiments, which are continually in progress of formation.

Reversing the picture: follow the particle of air penetrating into the pulmonary cells, watch it dissolving in the blood, and combining with its carbon to reproduce that carbonic acid, the decomposition of which we have just alluded to. Venous blood will therefore contain dissolved carbonic acid, itself a solvent of phosphate of lime. Venous blood will therefore have a tendency to soften the bones, to swell and dissolve our tissues and their component cells. Under its influence animal matter will become oxidated, for the purpose of keeping up the

necessary degree of heat, and the dissolved phosphate of lime will be carried away with the urinary secretions.

Thus a drop of water loaded with carbonic acid, dissolving phosphate of lime, and struck by the rays of the sun, represents the first step of life; or a drop of venous blood saturated with carbonic acid, carrying away phosphate of lime from our tissues, represents the beginning of death.

In the plant, the formation of a cell; in the animal, the dissolution of a cell; in the former, carbonic acid decomposed; in the latter, reproduced; in one, phosphate of lime rendered insoluble; in the other, the same salt in a soluble state: such are the feeble efforts which cause land and sea to swarm with life, with so many beautiful creations, to whom feeling and thought have been imparted; an unceasing proof of the omnipotence of Nature.

Shall I show you, in its turn, how sulphur passes from one region to the other—from the sea to the atmosphere, and thence to the soil, to plants, animals,—and again returning by the rivers to the bosom of the sea? How simple the mechanism of all these mutations; but how efficient and certain! The sea contains sulphates and feeds mollusca, the secretions of which absorb the oxygen of the sulphates, and change them into sulphurets, from which hydrosulphuric acid is constantly disengaged. Wafted away by the wind, sulphuretted hydrogen soon meets with vegetable remains, in the humid pores of which it is again converted into sulphuric acid and sulphates.

The sulphuretted hydrogen liberated from putrescent animal matter, from the sewers of our towns, &c., is the most indispensable term of one of those great equations by which the balance of nature is eternally poised. Two millions of kilogrammes of sulphur are indispensable to the wants of the human population of France, and ten millions would barely represent the mass contained in the organized beings who live on that corner of the globe.

The sulphates of the soil, passing into the plants which yield it to animals, would speedily be exhausted, were it not provided that the seas shall form an immense reservoir, from which sulphur is constantly returned to the earth.

Shall I call your attention to the singular contrast, which shows us of the two mineral alkalis—one, *potass*, chiefly concentrated in plants; the other, *soda*, in animals? Our excretions reject potass, and return it to the earth, but as it is soluble the natural course of rivers carries it constantly away towards the sea; hence the numberless artifices by which the agriculturist endeavours to restore it to the exhausted soil in ashes; in manure it is potass which forms the fecundating agent. The wine-grower of Montpellier manures the soil with seaweed, and restores to the ground the potass which the vine takes from it in large quantities, in the shape of cream of tartar. Is it not for the same reason that the fields on the seashore are so proverbially fruitful? and, may I not add, that it would be desirable to ascertain, by extensive experiments whether the mother-water of salt pits, so rich in salts of potass, might not form the basis of an excellent manure? I should like, for my part, to see this idea confirmed, and to see the waters of the ocean, where all the residues of life are confounded, separated into two parts, and obey the will of man; giving him by its crystallizable salts, soda necessary to his nutrition, and to that of the animals he associates to his destiny, and leaving in its uncrystallizable compounds, potass, indispensable to the existence of the plants cultivated by him. We have said enough to prove, that if in the eyes of abstract chemistry organic matter alone is important, in our eyes, seeking as we do to penetrate the mechanism of life and to detect its laws, every substance contained in organized matter is equally interesting.

DAN. M'CARTHY, D.M.P.

Mr. John Moss, chemist, of Sheffield, informs us that he has found test papers made from an infusion of dahlias the most sensitive of the presence of alkalis and acids, very superior to litmus.



## ORIGINAL CONTRIBUTIONS.

REFLECTIONS AND OBSERVATIONS  
ON INSANITY.

By JOSEPH WILLIAMS, M.D., &amp;c. &amp;c. &amp;c.

(Continued from p. 142.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

It forms the exception for medical men to pay any attention to mental disease; and hence, when a case of insanity occurs in private practice, the individual so affected is either sent away at once to a lunatic asylum, or the medical attendant, being himself alarmed, restrains his patient by violent measures.

The general ignorance of diseases of the mind, so prevalent throughout the profession, has frequently led to very unjust detentions; and if any medical man, so uninformed upon this subject, is requested to visit an alleged lunatic, he goes prepared to *prove* insanity; whereas his object should be to ascertain the exact state of the patient's mind, and to see whether there would be danger to life or property in allowing him personal freedom. But the very fact of seeing a person already manacled has, alas! been to many sufficient proof of his insanity; and indeed, as Sir Henry Hallford has said, if already confined, his condemnation is almost certain.

No medical man is warranted in signing a certificate of a patient's unsoundness of mind, without having seen such patient, and not upon the mere representation of friends consign a person to a madhouse; and it is only upon some very special occasion, as when some immediate danger is threatened either to the patient himself, or to others, that it is justifiable to place him at once in custody. The application of the family is no sufficient warrant, but personal observation alone can justify any medical man in signing a certificate of unsound mind; and, if any one should now be so wicked or so indiscreet, the powerful arm of justice will be raised to prevent the repetition of such acts, whether they arise from ignorance, inconsistency, dishonesty, or malice.

The generality of medical men, when asked to see a case, go with the full intention of establishing insanity, not to disprove it. The object should not be to look for the evidence of insanity, or for that evidence which may furnish mere *suspicion*; but the great point is to ascertain whether the individual is dangerous to himself or to others, and in some instances whether partial surveillance is necessary to prevent a waste of fortune or of effects. If on visiting a person he is at once found to be evidently of unsound mind, the question to be decided is, what degree of restraint may be necessary; and this must depend upon a variety of circumstances, all of which should be ascertained, particularly respecting his hallucination, or instinctive wish, his habits, actions, and inclinations.

When a patient in a calm and placid manner complains of unjust detention, or charges his friends with dishonest intentions, this, although so common among lunatics, should not be disregarded, but a thorough investigation should be instituted; and it is more proper to judge by the facts and appearances themselves, rather than from any opinions voluntarily tendered by others. It may happen that the unsound state of mind at once betrays itself, but still it is a duty to examine individual cases, because, as numbers have already been proved to have been placed under confinement from interested motives, the same delinquencies may again occur.

A person who is improperly taken and detained as a lunatic may maintain an action for assault and imprisonment, and a jury will then decide whether the proceedings have been regular and justifiable.

If access cannot be had to a patient for the purpose of investigating his state of mind, application may be made to the Lord Chancellor, who has the power to give an authoritative order; but the request is always refused if made by a person who has no pretence for the demand. This subject will, however, be subsequently more fully considered.

There can be no doubt as to the necessity of

placing under control a furious maniac, who would be constantly injuring himself or others; and, should he in addition eat his own excrement, this would even render more surveillance and cleanliness necessary; but the greatest care and precaution should be directed to those who are suicidal, or who, suffering from instinctive madness, are homicidal; and indeed equal vigilance is necessary where hallucinations prompt the possessed to injure life or property. Now, in any of these cases, no one, however humane, would wish to see such dangerous lunatics allowed perfect freedom of action, but at the same time, although they require control, they need not be treated as felons; but extra attendance and increased caution must supply the place of iron bars or iron hobbles.

There cannot be a doubt that numbers now the occupants of lunatic asylums ought never to have been subjected to such imprisonment. Dr. Conolly says, "The crowd of most of our asylums is made up of odd but harmless individuals, not much more absurd than numbers who are at large."

How often is a man sent to an asylum by his friends, because he is eccentric or irritable, whereas by removing him from home to some suitable and cheerful residence, and by having an experienced servant to wait upon him, he might, by temporary change and care, again in happiness return home to resume his usual duties; but he is sent to an asylum, and Dr. Conolly says, "this is the worst place for an eccentric or irritable man, as here this eccentricity, this irritability increases; whereas in general society these failings would be checked. Confinement renders it permanent, and ripens eccentricity or temporary excitement or depression into actual insanity; and this is not the worst part of the evil, for even when a patient has suffered no aggravation of his disorder during its greatest severity, the danger is not passed: nay, it is increased as his convalescence advances; for, when that otherwise happy change commences, the sights and sounds of a lunatic asylum become, if they were not before, both afflicting and unsalutary."

How dreadful for a patient just becoming conscious, with reason dawning upon him, to find himself in a madhouse!—to hear the dreadful ravings, to see the grotesque exhibitions, to be greeted by the idiotic laugh—are not these sufficient to confirm his mental malady? There is no rational person to whom he can unburden his mind; reason and sympathy are not within those walls; his half-recovered reason bends under such affliction, and he relapses, and, as Dr. Conolly wisely says, "the chances against his perfect restoration are fearful; and most powerful causes of returns and aggravations of his mental malady are accumulated upon him."

Although classification may effect a good deal, yet where the patients are numerous, as they always are in county asylums, no system can be made so perfect as to place such convalescents together as that they may not impede each other's recovery. The opinion is not of ancient date, when it was declared, that a lunatic saw his own errors more clearly when associating with those who held opinions equally ridiculous with his own! And yet we know how vivid and active is the power of imitation, and we also are aware of the restraint general society imposes upon most of the insane; and it is well worthy of inquiry how such opposite views can be reconciled. The fact is, so powerful is the effect produced upon healthy and sound minds by being constantly in the presence of lunatics, that very few nurses or keepers live under such exposure many years without themselves becoming insane!

It is of the greatest advantage for all persons at all singular or eccentric to associate with others free from these peculiarities, and hence it is that cheerful society is so advantageous in many cases of insanity. Man is fond of imitation; it pervades all classes; and, therefore, to mix up a number of weak-minded persons together is to confirm silly habits and false ideas. It is imitation which causes hysteria to run through a female ward, it is imitation leads a number of men in succession, as at the Hôtel des Invalides, to hang themselves on the same spot, within a few days of each other; it is

imitation which tempts nervous persons, especially women, to murder those helpless babes whose innocent smiles even form no protection; and it is imitation which often induces romantic and foolish lovers to terminate existence in one common act. I feel it were impossible to describe the various proofs of imitation; I see it in every thought, word, and action. How few can be original; how much must a man imitate before he is in a position to form a sound judgment even upon the daily occurrences of life.

If, then, imitation plays so important a part in the economy of man, can it be said that a madhouse is the place where one who is becoming conscious, who begins to reason, who recommences to reflect, that this is the place for him? That here, amongst the irrational, he is to obtain reasonable answers to the queries he makes? That the perverted conceptions, the distorted ideas, and their oft-repeated reiterations, will be more likely to aid him in the recovery of mental vigour, than a calm, dispassionate, and judicious manner, which can only emanate from one of sound mind? How much more reasonable to suppose that in a happy family where harmony united all, and where judgment, reason, and affection guided every sentiment and wish—that here irritability would be soothed, eccentricity would be restrained, and insanity prevented?

Many persons, not predisposed through hereditary transmission, may be eccentric to such a degree as to be on the very verge of insanity, and yet never become insane, if allowed to mix in general society; although it is not unusual to find where there is predisposition that the mind ultimately gives way and the patient becomes irrational.

A madhouse is not the place for persons of merely weak mind, nor for the milder cases of insanity, nor of incipient mania: in all such instances the symptoms are almost invariably aggravated by such indiscretion—the symptoms become chronic, disease is confirmed. To send a puerperal patient to such an asylum is most reprehensible. Dr. Conolly says, "I well know that patients labouring under puerperal insanity have sometimes been sent to lunatic asylums; such a step in such circumstances is so inconsistent with every feeling prevailing in social life, that whenever it is taken the whole responsibility and the whole odium of it must rest with the medical adviser."

Even to remove such a patient from home is indiscreet in the first instance; but if the presence of her infant, or her husband, or her friends irritate and annoy her, they should be excluded; if, a month subsequently to her confinement, no improvement has taken place, change of air and scene should be recommended, and more especially if she appear dissatisfied with home; where this is not the case, she will be more likely to get well at home than elsewhere; but where there is much irritability, and this continues daily increasing, change of air, especially at the sea-side, is highly desirable.

Delirium is frequently attendant on fever, and it does occasionally continue for some weeks *after* the febrile symptoms have subsided; and it has happened that such cases have been removed to lunatic asylums, both during and subsequently to the attack. Nothing can be more reprehensible; it is the very way to render chronic those symptoms which are only temporary, and the patient may by such treatment be driven mad. During the convalescence of fever it is delightful to watch the mental vigour increasing day by day, and to see the individual, who so shortly since was perfectly imbecile, now able rationally to converse. How different might the result have been, if placed within a madhouse!

It is of great importance to distinguish accurately between delirium and insanity: for to send a person to a madhouse who is delirious from fever is an indiscretion so terrible, and may prove of such disastrous consequences, that the greatest circumspection and precaution should be exercised.

Delirium is found as the consequence of fever, the febrile condition being the chief affection, there is an intensity of fever—the delusions or wanderings depend upon the fall and rise of this fever, but do not remit; whereas in acute mania, although there are febrile symptoms, yet they are not of the



same intensity, and the incoherencies and violent actions generally suddenly cease, the maniac becoming for a time not only tranquil, but more or less rational.

It is scarcely possible to conceive the various injuries which may result from mistaking delirium for madness, but to mention a single instance will be sufficient to prove the truth of such a statement. A clergyman built a chapel at his own expense, expecting to derive an income from the letting of the seats; he had an attack of fever, and was delirious for some weeks. Soon after he was taken ill, a friend had incautiously, from the desk, announced that there was no probability of their pastor ever again addressing them, as he was labouring under mental derangement; but in a few weeks more he actually recovered, and when he again appeared in the chapel he found it deserted; and he to this day preaches to nearly empty benches, and I have myself heard persons in that neighbourhood say, "It is not likely one would go to hear a madman preach." Now, this gentleman is perfectly sane, and is a martyr to the indiscretion of those who in the first instance mistook the symptoms of his affection.

So long as a man manages his property with discretion, and neither injures nor threatens to injure himself or others, however eccentric in other respects he may be, yet he is not a fit object for control or for confinement: for many men, who are in other respects very ridiculous, can take good care of their money, and even by their own industry and talent realize large fortunes; and to confine such a person, or to take out of his own power the management of his affairs, is unjustifiable, and not unfrequently, in such cases where the friends send such a person to a lunatic asylum, it is for the sole purpose that they should themselves assume the regulation of his affairs.

I have known two instances of ladies, not connected with each other, who invariably turned night into day, sleeping while the sun was shining, and rising when darkness came on; and one of these ladies always had the greater part of the house well lighted up at night: this, together with rather an unnatural gloominess, constituted her peculiarity. Now, this lady enjoyed life, and, having an ample fortune, could easily gratify her fancy; there can be no doubt it would have been unjustifiable to have interfered with her liberty, and confinement and restraint would probably have complicated her error and shortened her life.

Another lady I knew, who, after an illness, took it into her head that she should die if she passed the threshold of her door. I always saw she was eccentric, and considered this fear an hallucination. Her husband died, and she was obliged to leave the house, as it was to be pulled down; and, although she had not been out of the street door for twenty years, she was removed to a distance of about four miles, and was then as well able to walk out as any of her neighbours. A peculiarity in this case was, that she was able to go out at the back door and walk about the garden; but it was her fear of passing the front door which kept her such a prisoner.

Now, this lady thoroughly enjoyed life after her own style, and was very happy in her family, and to have separated her from them would doubtless have aggravated her very mild and innocuous delusion.

Dr. Conolly mentions the case of a gentleman who was remarkable for his taciturnity; he left home, ordering his dinner to be prepared daily at the usual hour; he was expected from day to day; he, however, unknown to his household, made a tour on the Continent, and returned home at the expiration of some months at the dinner hour, just as though nothing extraordinary had occurred. In no other respect was he eccentric, but was remarkable for the punctuality of all his domestic engagements.

Some persons have a remarkable aversion to meeting or speaking with their friends: they hold their heads down and try to avoid them, and there is the greatest difficulty in meeting such a man's eye. Dr. Conolly mentions a curious example, where a gentleman was constantly exclaiming, "Lord have mercy upon us"; "What a wicked

world this is"; and similar short exclamations. In ordinary circumstances he was unconscious of what was passing, and took no notice; but when the impression was increased his faculties were roused, and especially his attention, into healthy action. Now, this is often noticed in an absent man: he pays no attention to a subject, but rouse him, his faculties may be good, his judgment may be sound. It is often observed in concussion of the brain that the injured person disregards ordinary conversation, but, when aroused and addressed in a louder voice, he answers queries rationally. So the absent man is lethargic, his whole frame is torpid, his pulse generally slow and full, he is usually of the bilious temperament. Absence, however, may be natural, or it may be acquired. When a change suddenly occurs, when a person, previously lively, talkative, and active, becomes suddenly dull, silent, and lethargic, medical and moral treatment is required, and change of air, travelling, or anything which has a tendency to interest, is the proper mode of treatment—he must be roused from his lethargy.

In an incipient case of mania it is far better to treat it at the patient's own house; this is infinitely preferable to removal. The patient can, at home, be placed under control, and the degree of restraint which may be necessary can be properly adapted by having one or more attendants. It is always in early cases so much may be done, and more persons recover during the first six weeks after being attacked, than the aggregate of any other subsequent periods.

In treating such cases at home much must depend upon the attendants, who should be selected by, and placed under the strict orders of, the medical man. The room should be kept quiet, often dark, or at any rate avoiding a strong light or sunny exposure, no noise whatever being permitted; the attendants must be firm but respectful, always showing deference where this is possible: no patient should be insulted. When the patient is conversing he must not be permitted to wander, but must be again brought back to the point whence he strayed; great care being taken that nothing is said which is likely to excite him.

It is the same in treating monomania or partial insanity: the patient must not be allowed to talk of his delusion—it being rarely advisable either to advert to, or allow the individual to speak of, his point of delusion.

Moral treatment is more effective in the early weeks than at any subsequent period. The quiet, with remedial and moral means, will often check delusion, or morbid fancies, in the bud; and in many instances, if the persons attacked were at once subjected to seclusion and quiet, this alone would often effect a cure; there are, of course, some cases where a different and an opposite mode of treatment is absolutely necessary.

The following case shows the great advantage to be derived from preventing a patient dwelling on the point of error. A lady, aged twenty-eight, had previously to her marriage been several times annoyed by strange fancies—for instance, having been present one day when a friend was becoming a nun and taking the veil, she returned home and fancied that she herself had made the vows, and could not be convinced of this error by her mother. At another time, being present when a friend was married, she thought, because she had affixed her signature to the contract, that she herself was the person engaged in that rite; and here, too, her mother used every expedient to set her right. Some time after, she married, and, during her husband's temporary absence, she returned to her mother's house, where she again became annoyed by strange and absurd scruples. She fancied herself first a nun, then a priest, ultimately a pope; her mother, being a woman of weak mind, did not combat these absurd notions with sufficient firmness; so that at length her imagination became so much persecuted by these absurd fancies, that she several times contemplated suicide in order to free herself from them. She also suffered from vigilania, headache, and also from nervous paroxysms, when she struggled, cried, and alarmed her neighbours. M. Leuret gained her confidence; ordered her to be removed to a family where all were

strangers; exacted a promise from her that she would never speak of her ailments or delusions to any one, not even to himself; he also ordered, baths, *bread pills*, and a somewhat nauseous ptisan, merely as a placebo. During the first month, he himself gave her lessons in arithmetic, history, and geography, because she was not disposed to pay sufficient attention to other persons. All the necessary restraints of tuition and acquiring, thwarted and annoyed her exceedingly at first, but she submitted, as she wished to be cured. She gradually became attentive, read and studied with interest and pleasure, and now indulged of her own accord in amusements and in habits of social life; her sleep had also returned, and the pain in the head had ceased; and she now expressed her astonishment at having allowed herself to be carried away, for so long a time, by such absurd fancies. It was always noticed that she was more fanciful and less diligent in her studies when suffering the periodical indisposition.

In this case the treatment lasted for six months; she took no medicine, was allowed perfect liberty, only she was made to promise she would not advert to her troubles. On one occasion she very nearly had a relapse, from having broken her promise and detailed her sufferings in a letter. The object in this instance was to interdict her from speaking of her hallucination, and also to occupy her attention by agreeable and useful employments; and it is more than probable, that had this lady been sent into any lunatic asylum, she would at this moment have remained there a monomaniac imbecile.

A person may be highly eccentric in dress, manners, and ideas, yet still is not a subject for restraint; but if his conduct interferes with the comfort of others, if he walks and annoys passengers, or threatens them, this must be prevented, or he must be put under control. So a woman may wear a bright red dress, yellow bonnet, and green boots, all made in the most grotesque style; she may appear in many other respects ridiculous—she may give a hop at every fifth step; yet she ought not, consequently, to be restrained; but if, in addition to this, when walking in the public streets she screams, shouts, and hollows, and in that way frightens others, this, being prejudicial to the interests of society, demands interference, as it may indirectly cause the death of an individual, as by fright to a pregnant woman, in this way possibly even sacrificing a double life.

The following case in point was heard before a police magistrate, May 12, 1846:—Lord A—has lately been constantly annoyed by a Mrs. Henry, who imagines his lordship married her in Paris under the name of Warder. She has several times applied to various inspectors of police for protection, as she conceived Lord A—watched her house, and wished to carry her off in a ship he had waiting in the Thames; and, to frustrate this, she said she had three holes dug in the garden, in which three watchmen were concealed, and she held a communication with them by means of a piece of string, so that, in the event of being surprised and attacked, she could instantly summon the watchmen by pulling the string. On being calmly reasoned with respecting this misapprehension, she became very angry, and threatened to shoot the inspector with a pistol. She imagined Lord A—ought to support her, and said she had written to the Queen, with full particulars and the necessary proofs. Here it was clear she was hallucinated respecting his lordship: there was delusion, monomania. Lord A—had not watched her house, had no ship waiting in the Thames, and had not married her in Paris; and as he considered his life in danger, and three physicians had, in addition to this evidence, testified to her insanity, and the dangerous consequences likely to result from her delusion, she was ordered to find bail, which it will be impossible for her to do, and she will in all probability be confined in an asylum.

It is certainly more prudent to remove idiotic or highly eccentric persons, especially if noisy, from public gaze, in large towns, as the less such cases are exposed the fewer examples may be reasonably expected; we are much the creatures of imitation, and there are at all times many hysterical



persons who would soon outrival any absurdities they may have witnessed.

When it is found that a person cannot control his feelings and actions upon any particular point, it is very necessary that this deficiency should be supplied by the control of others; the degree of restraint must depend on the degree of defect or of danger. In some instances, where intemperance is habitual, and where the patient gets maddened with drink, it may be only necessary to prevent a repetition of inebriety; but, whether rich or poor, to cause mere drunkards, however degraded in society, to associate with lunatics is most wicked, and ought not to be tolerated; consequently, if confinement is essential, it ought not to be in a madhouse.

So in the case of a man of fortune, where there is extravagance, where this gentleman is ruining himself and his family, daily wasting his wealth, the question is, is it not proper to restrain such a person from inevitable ruin, and to remove him into the country, and place him in such circumstances that he cannot lavish his wealth? Perhaps, a few weeks after such seclusion, this very person may feel deeply grieved at his follies, and be grateful that he was prevented from getting rid of more of his fortune. But when a patient thinks himself inspired, that he holds a commission from Heaven to take away life; or where, as a general, he imagines he must despatch a victim for the sake of example to his soldiers; where, in fact, there is danger to life, active surveillance and even active restraint are sometimes indispensable.

Removal from home, and separation from friends, may often be necessary, when it would be very inexpedient to confine such a person in an asylum; the degree of necessary restraint is the important point to determine. Separation from friends, and change of residence and of servants, will often be justifiable, when to remove such an individual to a lunatic asylum would be most criminal. A patient rarely enters a madhouse without knowing where he is; and, in an incipient case, for an irritable man to wake up and find himself in a lunatic asylum, may render him more irritable, more suspicious—it may aggravate every symptom.

Directly a person, be he rich or be he poor, entertains erroneous impressions, and often when only eccentric, away he is hurried to a madhouse, where the chances of his cure are as remote as is the love which has not unfrequently, especially in the upper classes, dictated his removal.

"Many individuals," says Dr. Conolly, "who conduct themselves rationally in the society in which they are restrained by the habits of social life, and by the necessity of paying some regard to the feelings and wishes of those about them, would, if freed from those restraints, become guilty of many extravagances and eccentricities."

A man may be poor and insane, and yet may not require to be confined or restrained; he works for his daily bread, and in doing so is placed in the very best circumstances for preventing a more decided development or aggravation of his delusion. Shut him up in a madhouse, his case becomes worse: so long as his mental error does not involve his personal safety, or the safety of others, he should not be interfered with; but if he be unable or unwilling to work, and more especially if he in any way disturb or annoy his neighbours, or if they constantly annoy and oppress him, then removal to some place of protection is indicated, and, inasmuch as his friends cannot support him, it is necessary that he should be kept at the expense of the County in which he resides; and, in many instances, it would be far better that some other place should be selected for him than a County lunatic asylum, because, however perfect the system of classification, yet the very associating daily with others holding deluded opinions is very injurious to any case where there is a chance of cure.

The mistake seems to be that a person is considered a fit subject for a lunatic asylum merely because he holds fictitious or erroneous ideas; and this appears to apply both to the rich and the poor; but a man may think he can sail *through* the earth from pole to pole, and yet is not consequently incapacitated from circumnavigating the world; or another may not know whence his intellect springs,

and may attribute it to the effects of "caloric," and yet in other respects may be highly gifted: indeed, so far as my observation extends, I find very clever men often exhibiting very glaring inconsistencies. A man may imagine he is tortured by mysterious agents with pneumatic aid, but surely to send him to detail his ills and misfortunes to a number of monomaniacs is not so likely to remove such hallucination as to engage him in healthy occupation, and to point out to him the beauties of creation; to gain the confidence of such a person, to lead him on by successive gradations, to draw off his attention from himself, to keep him constantly occupied—these constitute the rational manner and plan of treating such a patient.

So, in many cases where there are false views upon religion—religious hallucination—travelling and kindness, and withdrawing the mind from the source of error, are the proper means to be resorted to.

Nothing is worse for the poor patient than to allow him to talk upon his point of error; and the constant endeavour of the medical and general attendant should be to tranquillize, and not to irritate. To introduce the subject to him is really wicked, and the more incipient the case, the more injurious will such indiscretion be; the attention must be drawn off from the hallucination. Of course the milder the delusion the less necessary is removal or restraint: some monomaniacs are so violent in their actions, and altogether so extravagant, that confinement is absolutely necessary, while others again exercise considerable self-control.

Moral insanity does not always require either separation or seclusion; especially where a patient does not feel injured by, or an aversion to, his friends. This should be the great test: if the motives of friends are mistaken, separation is always necessary, although seclusion may not always be indicated. When it has been considered necessary to order seclusion for a patient, care should be taken not to protract it any longer than is essential; the time must of course vary, and in some instances even half an hour or an hour may be sufficient. The presence of strangers is often agreeable to the insane, when that of their own family occasions them the greatest irritation; and it often happens that a man who has been most violent at home, becomes quite tranquil when removed to some other residence; the *change* produces the effect, and in many cases it may be necessary to select new and faithful and experienced servants.

Throughout Europe, physicians are agreed that separation and seclusion are of the greatest benefit in the treatment of insanity; and, although early seclusion is of the greatest service, yet, after a time, when benefit has not resulted, it should not be persisted in; and this is a point which requires the nicest discrimination and the soundest judgment. To admit friends too soon is very injurious, but this has certainly not often been a *fault* at private lunatic asylums. There may be particular reasons why a patient should not be disturbed on some special occasions, when these should be duly explained by the persons in charge; but when friends consider it necessary and essential to see an afflicted relative, contrary to the wishes and experience of the medical attendant, it is considered better to have the wish expressed in writing, simply to exonerate the medical man from responsibility.

A considerable step towards the prevention of cruelty and inhumanity would be made, by devising some plan by which friends could at all times, during the day, see their relatives, this being so effected as that, when considered necessary, the patient was unaware of being the subject of observation. Medical men of all others, when not related, should be admitted at any hour. It was only last week I knew of a surgeon being refused to see his friend; and the excuse made was, to my mind, anything but satisfactory. Until the Government assumes the direction of these establishments, an inspector should daily visit each asylum at an uncertain hour, and in some instances such visits should be even more frequently repeated. Such inspections cannot be considered vexatious, their object being to relieve suffering humanity,

and to protect those who are placed in such circumstances that they cannot protect themselves.  
(To be continued.)

## LECTURE ON THE CAUSES OF THE PRESENT EPIDEMIC FEVER.

By HENRY TAYLOR, Esq., Surgeon.

On Friday last, Henry Taylor, Esq., surgeon, Nottingham, commenced the delivery of a couple of lectures, before the Medical Society, at the Nottingham Dispensary, on the causes of the epidemic fever that is now raging in that town and neighbourhood.

After a few introductory observations the lecturer said—"The subject which I have undertaken to bring before the society this evening, for the purpose of exciting discussion, is so important that it will be unnecessary for me to dwell one moment on the advantages which may be derived by entering upon it. Much good must result from fully and carefully considering the causes which have produced or in any way tended to maintain so severe an epidemic—a disease which has assumed so violent and fatal a form, that most of us have witnessed cases which have run into the worst stages of low typhus, and which, unfortunately, in many instances, have proved fatal. My desire, this evening, is more expressly to draw attention to the causes, believing, if such are fully understood, that much will be gained towards procuring relief, by obtaining a knowledge of the means for staying so fearful a scourge.

"In entering upon the consideration of the cause of this epidemic, I would beg to be understood that I assume the most simple, and, to my mind, the most natural division of the cause of fever into two grand heads—the predisposing and the exciting; the words themselves sufficiently express their meaning; other additional divisions, which some authors have assumed, are, in my opinion, unnecessary, and more apt to lead to confusion and perplexity, than in any way to facilitate the inquiry upon which we are about to enter. I am anxious, preparatory to my entering upon the subject of this paper, to glance over a few of the facts which have been tolerably well established, relative to fevers generally. First, then, as to the immediate or exciting causes of fever. The immediate or exciting cause of fever is a poison formed by the corruption or decomposition of organic matter. Vegetable and animal matter, during the process of putrefaction, give off a principle, or give origin to a new compound, which, when applied to the human body, produces the phenomena constituting fever. What this principle or compound is, whether it be one of the constituent substances which enter into the composition of organized matter, or whether the primary elements of organized matter (as they are disengaged in the process of putrefaction) enter into some new combination, and thus generate a new product, we are wholly ignorant. Of the composition of the poison, of the laws which regulate its formation, and of its properties when generated, we know nothing beyond its power to strike the human being with sickness or death. We know that, under certain circumstances, vegetable and animal substances will putrefy; we know that a poison capable of producing fever will result from this putrefactive process, and we know nothing more. Of the conditions which are ascertained to be essential to the putrefactive process of dead organic substance, whether vegetable or animal, those of heat and moisture are the most certain, and, as far as we yet know, the most powerful. Accordingly, in every situation in which circumstances concur to produce great moisture, while the heat is maintained with some steadiness within a certain range, there the febrile poison is invariably generated in large quantities and in great potency. Wherever generated, we have no means of ascertaining its existence but by the effects it produces on the human body. Now and then circumstances arise which illustrate these effects in an exceedingly striking manner—numerous instances are on record in proof; perhaps some advantage may be derived by my reading one or two marked examples.



"A very pointed case is related by Dr. McCulloch—a man who has done more than any one else to show and point out the cause and effect of malaria, and who has laboured with the greatest ability and zeal to call attention to this most important but neglected subject. He relates an instance of some men on board a ship, who were seized while the vessel was five miles from shore with fatal cholera; the very instant the land-smell first became perceptible, several of these men who were employed on deck died of the disease in a few hours. The armourer of the ship, who, before he could protect himself from the noxious blast, was accidentally delayed on deck a few minutes, to clear an obstruction in the chain cable, was seized with the malady whilst in the act, and was dead in a few hours.

"Dr. Potter states that he witnessed the rise of a most malignant fever in a valley in Pennsylvania, which contained numerous ponds, and which, from the heat and dryness of the season, emitted a very offensive smell; that the fever prevailed most, and with the greatest degree of malignity, among the people who lived nearest these ponds; and adds an exceedingly instructive case, illustrative of the generation and operation of the cause of fever, recorded by Major Prior, in his account of a fever which attacked the army of the United States, at Gallipolis. The source of the malady was clearly traced to a large pond, near the cantonment. When proper means were taken to destroy the pond, the fever immediately lost its continued form, and became first remittent, then intermittent, and ultimately disappeared. The recital of this case might be lengthened materially to show decidedly and unequivocally that the disease had its origin in the pestilential emanations from the pond, but I think I have quoted sufficiently to convince the members that such really was the case.

"Dr. Potter relates another case of a very striking character. He attended a lady in a most severe fit of fever, which terminated fatally; that putrefaction set in so rapidly after death, that it was necessary to order immediate interment. Some time after, he was called to the same place; he found several of the family with most violent fever, of the most malignant character. There being no apparent cause for the condition of this afflicted family—the immediate neighbourhood of the house being free from the ordinary sources of malaria, and the adjacent country not being unhealthy—the condition of the house was minutely investigated. The cause of the evil was manifest. It appeared that the present family had resided in the house only about five weeks; that, immediately preceding their occupation of it, a man had died suddenly in it; that he himself (Dr. Potter) was seized with nausea and general lassitude immediately on leaving the house, after his first visit; and that a fever, as he supposes, was arrested by a strong dose of tartar emetic, which operated violently by vomiting and purging. On examining the premises, it was found that the cellar contained water, about two feet deep, which had remained there for some time, the country having been inundated by torrents of rain. The cellar being useless, the door had been closed, and the only vent for the pestiferous gases was through the floor, which was open in several places. The family being immediately removed, all the sick became convalescent from the time they ceased to breathe the air of the place. The owner of the house hired two men to empty the cellar. These men, having ripped up the floor and placed a pump in the deepest part of the water, emptied the cellar in one day. On the second day after the execution of the task, one of these men was seized with a chilliness, succeeded by an ardent fever, which in a few days proved fatal. The day following the seizure of the first, the second man was attacked with similar symptoms, and died on the seventh day of the disease.

There is a striking anecdote given by Lancisi, showing, on a small scale, the effect of the wind in carrying the malaria with it. Thirty ladies and gentlemen had sailed to the mouth of the Tiber, on an excursion of pleasure. Suddenly the breeze shifted to the south, and began to blow over a marshy tract of land situated to the windward of

them. Twenty-nine of the thirty were immediately after attacked with intermittent fever. In Italy, according to McCulloch, the poisonous exhalations of the Lake Agnano have been ascertained to reach as far as the Convent of Camaldoni, situated on a high hill three miles distant. One remarkable property of malaria is its attraction towards, and its adherence to, the foliage of lofty umbrageous trees. In the territory of Gulana, where large trees abound, the settlers live fearlessly and unhurt close to the most pestiferous marshes, and to leeward of them, provided that a screen or belt of trees be interposed. New Amsterdam, in Berbice, lies on the lee side of an immense swampy forest, in the direct track of a strong trade wind that blows night and day, and pollutes even the sleeping apartments of the town with the stench of the marshes; yet it brings no fever, so well protected is it with trees. The inhabitants are well aware that it would be almost certain death for a European to sleep, or to remain after nightfall, within the verge of the forest. To cut down the trees would not only be a perilous operation in itself, but would let in pestilence to the town. Lancisi even addressed a remonstrance to the Pope against a project which was entertained of telling some wood near the Pontine Marshes, between them and the city. These examples may suffice to illustrate the operation of that febrile poison, which arises chiefly from the decomposition of vegetable matter. The poison derived from the decomposition and putrefaction of animal matter is still more pernicious; its effects are more powerful in degree, and worse in character; it operates more intensely on the nervous system, and less on the vascular; and the fevers it produces are invariably of the typhoid type and continued form. Without doubt, a febrile poison purely of animal origin, in a high degree of concentration, would kill instantaneously; and when not intense enough to strike with instantaneous death, it would produce a continued fever with the typhoid characters, in the greatest possible degree of completeness and perfection. It has been, for many years past (1695), generally admitted that animal malaria and vegetable malaria have been the exciting causes of fever; and to mention all the names of the authors who have observed and recorded the influence of animal malaria in the production of the plague, would be to enumerate every distinguished writer on the subject, from Pliny down to the learned of the present age. In assigning the reason why Grand Cairo, in Egypt, is the birthplace and the cradle of the plague, Mead states that this city is crowded with vast numbers of inhabitants, who live not only poorly, but filthily; that the streets are narrow and close; that the city itself is situated in a sandy plain, at the foot of a mountain, which keeps off the winds that might refresh the air; that consequently the heat is rendered extremely stifling; that a great canal passes through the midst of the city, which at the overflowing of the Nile is filled with water; that, on the decrease of the river, this canal is gradually dried up, and the people throw into it all manner of filth, carrion, offal, and so on; that the stench which arises from this, and the mud together is intolerably offensive; and that, from this source, the plague, constantly springing up every year, preys upon the inhabitants, and is stopped only by the return of the Nile, the overflowing of which washes away this load of filth. That in Ethiopia the swarms of locusts are so prodigious that they sometimes cause a famine by devouring the fruits of the earth, and when they die create a pestilence by the putrefaction of their bodies; that this putrefaction is greatly increased by the dampness of the climate, which, during the sultry heats of July and August, is often excessive; that the effluvia which arise from this immense quantity of putrefying animal substance, combined with so much heat and moisture, continually generate the plague in its intensest form; and that the Egyptians of old were so sensible how much the putrefaction of dead animals contributed towards breeding the plague, that they worshipped the bird ibis from the services it did in devouring great numbers of serpents, which they observed injured by their stench when dead, as much as by their bite when alive.

"Nothing can be more striking than the cases recorded by Pringle, and which daily occurred to him, of the production of fever, and of the sudden transition of intermittent and remittent into the continued and typhoid type, from the presence of a poison clearly and certainly of animal origin. Whenever wounded soldiers, with malignant sores or mortified limbs, were crowded together, or whenever only a few of such diseased persons were placed in a room with the sick from other diseases (with those labouring under intermittent and remittent, for example), a severe and mortal typhus immediately arose; nay, whenever men, previously in a state of good health, were too much crowded together for any considerable time, typhus was sure to be produced. The instances of such occurrences that are detailed are too numerous to be cited; but they are so clearly stated, and so striking, that they well deserve to be consulted by whoever is desirous of clearly tracing the operation of the great cause of fever. But by far the most potent febrile poison, derived from animal origin, is that which is formed by exhalations given off from the living bodies of those who are affected by fever, especially when such exhalations are pent up in a close and confined apartment. In this opinion all medical men are agreed. The causes which have been mooted by some theorists, as to the production of fever by the influence of animalcula, appear to me to be so untenable, that I think it unnecessary further to allude to them. There is another form of animal matter capable of producing fever, namely, a matter secreted by the living body, constituting not only a poison, but a specific poison. This specific poison produces not merely fever, but fever with a specific train of symptoms; to this the term contagious may more fitly be applied, whilst to the former instances which I have shown, the term infections may be used with more propriety.

Now, as to the predisposing causes. The remote or the predisposing causes of fever have been stated to be those circumstances which bring the body into a condition capable of being affected by the immediate or the exciting cause. Whatever diminishes the vigorous action of the organs, impairs their functions, and so weakens the general strength of the system, is capable of becoming a predisposing cause of fever: and every predisposing cause acts after this manner. Of all predisposing causes, the most powerful is the continued presence and slow operation of the immediate or the exciting cause. It is a matter of constant observation, that the febrile poison may be present in sufficient intensity to affect the health, without being sufficiently potent to produce fever. We have seen that the vegetable or animal poison may exist in sufficient intensity to produce fever on the slightest exposure to it, without the operation of any predisposing cause, in a body in the state of the soundest health, and endowed with the greatest degree of strength. Examples of this kind are but too frequent in tropical climates. In countries where the temperature never rises so high, and seldom continues so long, it is rare that fever is produced immediately on exposure to the exciting cause. The influence of cold, moisture, fatigue, intemperance, constipation, anxiety, fear, and all the depressing passions, are likewise extremely powerful predisposing causes. They enable a less dose of the poison to produce fever, and they increase the intensity of the fever when established. They all act by weakening the resisting power inherent in the constitution, that is, by enfeebling the powers of life. It is to Dr. S. Smith that I am indebted for many of the above facts relative to laws which influence fevers. How completely do these medical facts bear upon the case of the present epidemic which has visited this neighbourhood. The first cases showed themselves in New Lenton; a place close to a pestilential and disease-engendering dyke, which permeated Old Lenton; a place where stagnant waters, loaded with decayed and decaying vegetable matters, were sending up the most filthy emanations—this putrid fluid mass being daily and freshly supplied with vegetable matter from neighbouring starch works, and animal matter from neighbouring fellmongers' works. The emanations from these ditches by time, by great heat, and occasional showers, producing the most



offensive effluvia, which must load the atmosphere with the pure essence of malaria (if I may be so allowed to speak). So satisfied was I of the bad state of the waters, that I sent a gallon stone-bottle filled with it up to a chemical friend of mine, who returned me an analysis which I shall presently have much pleasure in reading. Now, with a disease-engendering locality, like to the one I have just mentioned, can we be surprised at, or can we doubt, its capability of being a predisposing cause? For my part, I believe it also to have been an exciting cause of the fever, and that it acted priorly as a predisposing cause, rendering the body weak and debilitated, and so far rendering the inhabitants ready victims to the poisonous miasma. To the sceptics who would doubt, and would fain say, Why did not the disease ravage more particularly the locality where the poison sprang from?—my answer would be, that the people at New Lenton were subject to additional predisposing causes, and would, therefore, be exceedingly liable to take the disease. At New Lenton itself there were nuisances innumerable:—stagnant pools of water—privies pouring out their offensive odours and bad air—houses crowded together, preventing the free circulation of pure atmosphere, beside being more thickly inhabited;—these alone are sufficient to produce predisposing causes, saying nothing about the residents there being a class of people who are worse clothed, and worse fed. At Old Lenton, the people were freed from many of these additional causes, being not so thickly congregated, &c., and so far were much better prepared for resisting so destructive a poison. As for the distance between New Lenton and the origin of the disease, it is but a few hundred yards, and towards which place the sluggish stream flows; but what can so trifling a distance at all avail in the matter, when I have just shown that where the disease has been in a more virulent form in the tropics, the contagious poison has travelled five miles from land over the sea, and has even then maintained such virulence as to strike the men who were in robust health with death, which followed the attack in a few hours? Disease having thus established itself by attacking more particularly those who, suffering from predisposing causes, were unable to resist the exciting cause, contagion at once set in, which, spreading by communication to various parts, shed around its poisonous influence—subjected the enfeebled and delicate to a more or less severe attack, according to the various causes which increased their degree of susceptibility. Perhaps I may here be allowed to read over the beautiful and careful analysis of the impure water which was conducted by my much respected friend, Ph. B. Ayres. [It has appeared already in our columns, and its repetition is unnecessary.] What part the poisonous gases played in producing or aggravating the disease is, perhaps, difficult to say. We all know that sulphuretted hydrogen is a poisonous gas, and that in excess it may be looked upon as deadly—there can be no doubt that even in smaller quantities it acts injuriously; indeed, the experiments by Thenard and others sufficiently prove the fact. So that at least we all must admit that the gaseous emanations alone will be sufficient to predispose the system for the imbibition of the noxious and deadly poison of malaria, which doubtless was formed from the same source—a poison too delicate and ethereal to be obtained and analysed by the most skilful of chemists, but which produces such fearful effects as the least experienced of our medical brethren cannot fail in observing. The onward march of learning and general inquiry has pointed out evils which have fostered and created the many ills which mankind has had to suffer. Science, in its onward march, has laid bare the causes which have given birth to, and nurtured, our most dreaded diseases, and has pointed out means for their removal, and our emancipation from them. These are happy thoughts for the philanthropic mind; and hard will it be if right knowledge, properly directed, and a determination to overthrow such fearful enemies, are not sufficient to cast down selfish interest and blind obstinacy, which stand in the way opposed to such benevolent purposes; the stream of good may, for a time, be perverted, but ultimately it must prevail, for truth, honesty, and right

are arranged on one powerful side. For my part, I believe that the sanatory movement, which has but just begun, is the movement which will ultimately annihilate half the bodily sufferings which the present race have to bear, and that brighter days will yet come for the indigent poor, who now lack the comforts of life, and, in their enfeebled condition, are suffered to endure the stalking of grim death in the form of pestilential exhalations, which now constantly mingle with them, themselves having no power to resist so deadly a foe. Let me humbly urge, wherever we, as medical men, have an opportunity of advancing the sanatory movement, and of checking the progress of the disease, so to apply our influence as to tend towards accomplishing so desirable an end. The very consideration of the sanatory movement would naturally lead me to enter upon the numerous causes which evidently are predisposing causes in the production of fever, such as damp, bad clothing, bad ventilation, drainage, sewerage, &c.; but what I have said must suffice, for I fear I have already consumed too much of your time; but my apology must be, that the importance of the subject appeared so great, that a lesser consideration would not have been compatible with its magnitude."

## HOSPITAL REPORTS.

### UNIVERSITY COLLEGE HOSPITAL.

#### RUPTURE OF THE LIVER FROM BLOW ON EPIGASTRIUM.

By W. E. WRIGHT, Esq., late House-Surgeon.

Charles Jones, aged twenty. Admitted June 28th, one P.M. A muscular, well-made young man, employed as a porter, at the London and Birmingham Railway. His friends state that while engaged at the station in moving some laden trucks, he passed between two of them which were at the time moving slowly, and was caught between the buffers, one being in contact with his back and the other with the abdomen. The shock rendered him for a time nearly insensible, and he was conveyed to the hospital.

*State on Admission.*—He calls out with apparently agonizing pain, which he describes as extending over the whole abdomen, but particularly acute in the epigastric region; there is no wound or discoloration of any kind now visible; his face is pallid, expressive of great anxiety, and bedewed with a cold, clammy perspiration; pulse is quick, small, and very feeble; vomits constantly dark, clotty, bloody-looking matter; keeps his knees drawn up, and tosses himself about the bed.

*Diagnosis.*—Rupture of some internal organ, probably liver.

He was ordered iced water; and morph. hydrochlor. gr.  $\frac{1}{4}$ , in haust. effrvesc. 2nda vel 3tia quaque hora; but could retain nothing on his stomach, incessantly vomiting the same dark-coloured matter. An opiate enema was given, which only gave him trifling ease for a short time; after which, the vomiting came on more severely, and he gradually sunk and died at seven the next morning.

*Autopsy.*—The integument over epigastric and umbilical regions, dark and discoloured; in inguinal region a considerable extravasation of blood; serotum much distended from same cause; cavity of abdomen contains a large quantity of blood, partially coagulated; peritoneal covering of ascending and transverse colon of black colour from extravasated blood beneath it. At fore part of liver, where the round ligament enters, there is a rupture of about an inch in length, the bridge of liver covering the ligament being torn through; also a little higher up there is another, one inch and a half long, in the direction of the transverse fissure. There are large coagula of blood between the layers of the transverse mesocolon and mesentery. The stomach much congested, and at the pyloric end extravasation of blood between coats, to the extent of a sixpence. The other organs were quite healthy.

#### DISLOCATION OF THE HEAD OF THE FEMUR INTO ISCHIATIC NOTCH.

John Godsall, aged eight. Admitted July 12. A stout, healthy-looking boy. Gives the following account of the accident:—

Was playing about in the Regent's park, and while stooping forwards to catch a butterfly, his body being much bent and his legs widely separated, another boy came behind and suddenly pushed him down, falling over him. The injured limb was doubled under him; he immediately felt great pain, and as if something had given way in the hip, and, being unable to rise from the ground, was carried to the hospital.

On admission, the following symptoms were observed:—He lies on the sound side; the injured limb is flexed, great difficulty is experienced in moving it, and the least attempt to do so causes severe pain; there is inversion of the foot and knee; measurement shows scarcely any shortening; diminished prominence of great trochanter, which is placed further back than natural, the head of the bone being obscurely felt behind it; a very trifling amount of swelling. Reduction was thus effected:—The patient, having been previously dosed with tartar emetic, was brought into the operating theatre and laid on the sound side; extension made by the pulleys a little above the knee, and directed obliquely across the opposite thigh; counter-extension by the usual perineal band. This was kept up for some time, until the muscles began to yield, when the head of the bone was lifted over the edge of the acetabulum by means of a silk handkerchief passed under the upper part of the limb, and carried round an assistant's neck, who at the same time fixed the pelvis by resting his hands firmly upon it. The whole occupied about twenty minutes, the head of the bone returning to its natural position, and the functions of the joint being restored without any sound being heard. The limbs were afterwards bandaged together and some purgative medicine administered.

In about ten days he was suffered to leave the hospital, being able to walk with only a slight limp. I should have mentioned that eighteen hours elapsed between the time at which the accident happened and the attempt at reduction.

### KING'S COLLEGE HOSPITAL.

#### FATAL INJURY FROM MACHINERY.

By HENRY SMITH, M.R.C.S., late House-Surgeon to King's College Hospital.

On the evening of September 28th, a lad, aged sixteen, was working at a steam-press, when his hand caught in the machine, and the whole of his left arm, as far as the shoulder, was rapidly drawn up between two large cylinders. He was immediately brought to the hospital. On examining his arm, I found a laceration of the integuments just above the inner condyle of the humerus, about three inches in length; there was no other wound, and merely some tumefaction about the shoulder and axilla. In fact, the injury appeared so trifling to the person who brought him, that he was rather surprised at my taking him into the hospital. However, I suspected, from the first, the nature of the injury and the probable consequences.

There was considerable venous hemorrhage from the wound; and, on examining the axillary region, I felt a crackling, as of blood, in the cellular tissue. The pulse at the left wrist was smaller than the other. He was put to bed, the arm supported by pillows, and kept perfectly quiet; and the wound dressed with water-dressing.

Sep. 29. He appears pretty comfortable, not suffering much pain; there is more swelling about the arm and shoulder; pulse is quick; tongue furred; skin hot. To apply warm water to the arm.

30. He is much worse; he suffers great pain in the shoulder and arm; there is considerably more swelling about the axilla; the pulse is much weaker at the wrist; constitutional symptoms are severe; he vomits everything. Mist. ammon. citratis  $\mathfrak{z}$ jss. 4tis horis.

Oct. 1. He is rapidly getting worse; symptoms of gangrene have appeared. The integuments in



the axilla, and over the wall of the chest, below the axilla, look black; the arm is exceedingly puffy. He does not complain of pain; he has been delirious in the night, and the countenance is anxious; he vomits everything. Foment the parts well.

R<sub>x</sub>. Ammon. carb. gr. v. 4tis horis. Wine.

2. I saw him at six A.M.; he was then so delirious, I was obliged to fasten him to the bed; gangrene has involved nearly all the left side of the chest, and has extended as far as the spine; the upper part of the arm is also in the same state, and a thin, sanious discharge issues from the wound. There is muttering delirium, brown tongue, quick and feeble pulse; the countenance indicates too clearly that death is at hand. Stimulants were freely administered, but no benefit appeared to result from any treatment; and he sank at seven P.M.

#### POST-MORTEM APPEARANCES.

An incision was made from the umbilicus to the throat, another over the shoulder, down the arm, as far as the wrist; the skin was turned back from this space, and through nearly the whole of it, the tissues underneath were in a state of gangrene.

The muscles of the arm and forearm were superficially gangrenous; the pectoralis major was scarcely touched. The most interesting parts to examine were the vessels in the axilla; there was a large quantity of blood effused amongst the axillary vessels and nerves, showing that some vessel must have been lacerated; but what vessel the blood extravasated around would not permit us to determine accurately. The subscapular artery was found torn across, but that might have been done during the *post-mortem* examination.

#### MANCHESTER EYE INFIRMARY.

By A. W. CLOSE, Esq.

This series of reports has been interrupted by incessant professional engagements. In resuming them, we would recur to the purposes contemplated. They are—to show the character of provincial surgery; to review the practice of those who, occupying “high places,” ought to possess *high qualifications*; to present to practitioners, especially to juniors, those views which may serve to guide them in their practical career.

We have to some extent, we may reasonably hope, conscientiously and satisfactorily fulfilled our intentions. Leaving, however, that which is behind, and reaching forward to that which is before, we shall endeavour to complete our arrangements. The following are cases of corneitis—a disease in the treatment of which much circumspection and observation are required.

#### CORNEITIS.

CASE 1.—Martha Smith, aged twenty-three, from Ovenden, near Halifax. Admitted under the care of Mr. Walker, November 1, 1845, having lost the vision of both eyes.

On examination, the right eye is found to be completely anautrotic, having been lost three years since, from an injury received whilst at work in a factory.

The left eye, she states, was attacked with inflammation about a month ago, and vision is totally gone; she has suffered some pain during the progress of the disease, but is now tolerably easy. The intolerance of light is excessive, and lachrymation profuse on the least exposure to light; there is a very considerable amount of vascularity, of both the conjunctival and sclerotic tunics. The cornea is opaque throughout or nearly so; at some points white, as if from deposit of lymph between its laminae; at others of a reddish-brown colour. No portion of the iris can be seen through the cornea, so dense is the opacity; she is not able to perceive the hand, when moved about immediately before the eye; her general health is moderately good, but she presents a pale, delicate aspect; she attributes the attack to riding in an open carriage on a railway. Leeches, blisters, &c., have been applied, and her mouth is now rather sore; probably from mercurials previously administered by her medical attendant.

A pencil of nitrate of silver was drawn lightly across the conjunctival surface of the lower eyelid.

She was ordered to take two grains of calomel, and half a grain of opium in pill, three times a day; the compound senna draught every second or third morning; and to have a blister applied to the nape of the neck, to be kept open by the ung. lyttae.

Nov. 5. The general vascularity of the eye is diminished, the cornea looks somewhat brighter, the intolerance of light less, and she is now able to discern the hand; the gums are very sore. The nitrate of silver has been daily applied. Continue it. Continue pill bis in die.

15. The eye continues gradually to improve; the mouth becoming severely affected, the pills have been discontinued for several days past. The nitrate has been applied every or every other day. A collyrium of the sulph. of zinc to be used occasionally during the day, and some of the ung. hydr. nit. oxid. at bedtime.

26. The vascular state of the eye is now much diminished, and there is a corresponding diminution in the haziness of the cornea; the pupillary portion of the iris is now visible through the centre of the cornea, and there is a great improvement of vision, so much so as to enable her to discern the hands of a watch. There is very little intolerance of light or lachrymation, and no pain, excepting after the application of the argent. nitrat. Apply the eupri sulphas daily instead of the arg. nitr. Contin. alia.

Feb. 1, 1846. For the last few weeks she has been an out-patient, attending only occasionally. She has lately been using a solution of the nitrate of silver in the day, and the ung. hydr. nit. oxid. at night. A gradual improvement has taken place, the cornea has a tolerably clear central point opposite the pupil; but the circumference is still very cloudy. The vascularity of the eye is now slight, and she can bear moderate exposure to natural, but is still intolerant of artificial, light. She is able to distinguish the countenances of her friends, and therefore desirous to return home, which was permitted. She was directed steadily to continue the treatment for several weeks, and to present herself at the hospital again, if convenient, in the course of a couple of months. There seems every reason to expect further improvement in the condition of the organ.

CASE 2.—Benjamin Mellor, aged eighteen. Admitted under Mr. Walker.

He complains of the left eye, which has been affected for six weeks. On examination, much vascularity of the sclerotic and some of the conjunctival textures is perceived. The cornea is peculiarly hazy, and its vessels at the upper segment present a brown elliptical opacity; vision is very indistinct; there is not much intolerance of light, nor lachrymation, but he complains of severe pain of the forehead over the affected organ; his aspect is plethoric. Let him take pil. col. c. opio ij. ter die. Pulv. purgans p.r.n. Applicetur empl. cantharid. et perp. alvus mitte. ope. ung. lyttae.

17. The general appearance of the cornea is rather improved; still complains of pain in the forehead; gums slightly affected. Cont. pil. cal. c. opio ij. nocte maneque.

20. The brown discoloration disappearing; cornea clearer; vision more distinct; no pain; gums decidedly affected. Cont. medicament.

31. The eye is going on well; the brown appearance of the cornea gone; the haziness clearing up. He continued the pil. cal. c. opio j. ter in die, until a few days ago, when they were discontinued.

Feb. 18. Presented himself again with a similar affection of the right eye. This was treated in precisely the same way, with a result as favourable.

Case 1 offers an instance of the value of the nitrate of silver treatment. Had it not been adopted, or had it been less decidedly used, so favourable a result would not have ensued.

Case 2 was treated antiphlogistically, with immediate, progressive, and complete improvement. The patient was robust and plethoric, and the deep-seated vessels more implicated than the superficial. The diathesis, and the kind of vessels congested, are the essential and special points to be regarded in making choice of the mode of treatment. More of this hereafter

Grosvenor-street, Manchester.

#### ROYAL GLASGOW INFIRMARY.

##### CHRONIC PERITONITIS, DYSPEPSIA—DEATH.

Inspection under the care of Dr. Watson (ward 3). Hugh Gordon, aged thirty-eight; Swede; clock-maker; widower.

May 13. After and often during meals, complains much of pain over stomach, flatulence, and frequent vomiting. Illness commenced about nine weeks ago, and is attributed to intemperance and want of food. Patient is emaciated, looks feeble and sunk; skin is cold; pulse 90, feeble; tongue white; some thirst; bowels regular; abdomen full, but soft, somewhat tender on pressure; has cough, with dense opaque expectoration, of ten days' standing; mucous rhonchi are pretty numerous over lower and back part of both lungs; heart's action and sounds normal.

14. No dejection; otherwise as at report. Sumat stat. haust. nigri, 3ij. Vesp. adhib. vesic. epigastr.

R<sub>x</sub>. Submur. hydr., gr. ij; pulv. opii, gr. j. ft. pilul. Sumat omne nocte.

R<sub>x</sub>. Aquæ potass., 3ij.; infus. gentian., 3vij. Sumat 3j. 4ta q.q. hor. To have milk diet.

16. Somewhat easier; abdomen still tympanitic. Contr. medicam. To have ordinary diet. Sumat cras mane, ol. ricini, 3ss. c.; ol. terebinth, 5ij.

17. Oil scarcely operated. Hab. vesp. enema c. ol. terebinth, 3ij.

18. Abdomen rather less tympanitic; cough still troublesome.

Rept. stat. ol. ricini c., ol. tereb. ut antea; et vesp. rept. enema terebinth. Contr. alia.

19. Somewhat better; still cough. Omitt. omnia præter pilul. Sumat omne mane. Tr. rhei 3ss. To have middle diet.

22. Still complains of cough; some rough crepitus under right scapula; thinks himself improved. Contr. pilul. Adhib. vesic. supra scapul. dextr. Hab. quoque haust. c., tr. opii, m. xv.

24. Considerable œdema of feet; otherwise the same.

R<sub>x</sub>. Sp. æth. nitros, 3j.; tc. scillæ, m. x. Sumat ter in die. Contr. alia.

25. Tormina; a scabies-like eruption over surface. Omitt. medic. Sumat stat. ol. ricini, 3j.; c. tc. opii, m. xx. Hor. somni hab. opii, gr. j. Utat pro erupt. ungt. sulphur.

27. Tormina yesterday relieved, to-day returned; cough less troublesome.

R<sub>x</sub>. Submur. hydr., gr. ij.; pulv. opii, gr. ss. ft. pil. Sumat, j. 3tia q.q. hor. Cras m. hab. ol. ricini, 3j. Contr. sp. æth. nitros. Hab. balneum tepid. vesp.

29. Tormina again returned; abdomen less tympanitic; limbs still swollen; urine not increased; cough less; pulse 76, small; tongue clean. There is a hard tumour in abdomen, nearly in the situation of caput coli. Tumour floats easily. Contr. omnia. Hab. vesp. enema anodyn., c. tr. opii, m. xx., et rept. post 2ndam dejection.

30. Pains relieved; abdomen softer; no stool. Contr. pilul. Cras mane hab. ol. ricini, 3ss.

R<sub>x</sub>. Ungt. simplicis, 3j.; pulv. iodid. plumbi, 3j. Friet 3j. supra abdom. m. et vesp.

June 3. Cough gone; tympanitic state of abdomen decreased; stools too frequent, of natural colour; urine 1lb.; pulse 76; tongue clean; mouth sore; œdema of limbs continues; is very weak, and has no appetite. Omitt. medic. omnia. Omne nocte sumat pil. opii.

R<sub>x</sub>. Sp. æth. nitros, sp. juniper. co., aa. 3ij.; tr. digital., tr. scillæ, aa. 3j. Sumat 3ss. quater in die. Hab. in dies spir. hordei, 3iv. Adhib. vesic. ad dimid. infer. abdomen.

10. Urine not increased; abdomen less tympanitic, and limbs less swollen; general health improved; bowels right.

R<sub>x</sub>. Acet. potass., 3ij.; aquæ puræ, 3vij.; hydriod. potass., 3j. solve. Sumat in die part. vicit. Contr. spirit. Omitt. mist. c. digital.

16. Greatly improved; still some œdema of feet; urine somewhat increased; bandage to feet and legs. Contr. alia.

18. Continues to improve; abdomen sometimes acutely painful, seemingly from spasm. Adhib. vesic. abdom. infer. Contr. alia.



23. Still improving. Omitt. medic. Sumat pil. opii p.n. Sumat sp. æth. nitros, 3j. 4ter in die.

26. One stool; complains excessively of flatulence; abdomen very tympanitic; pulse 68. Vesp. hab. enema c. ol. terebinth. Contr. opium. Hab. vin. rubri, 3ij.

27. Abdomen softer, but still much distended; had three stools since enema; stools natural; pulse 88, very small; loosing flesh; face rather anxious; again some acid vomiting this forenoon. Augeat sp. hordei ad 3vj. Omitt. vinum et opium.

Rx. Submur. hydr., pulv. opii, aa. gr. ss. ft. pil. Sumat j. 6ta q.q. hor. Si vomit. perst. adhib. sinap. epigastr. Hab. q.q. magnes ustæ, 3ss.

30. Thinks himself better, but gets more emaciated; swelling of feet and legs increased. Contr.

July 1. Thinks himself still improving, but looks worse; no complaint. Contr.

6. Moribund.

7. Died at four A.M.

8. Inspection at three P.M.—3lbs. of serum in peritoneum; peritoneum much thickened throughout whole extent, of a dull, fleshy-red colour; serous coat of intestines and stomach much thickened; stomach otherwise healthy; intestines, large and small, much distended; small, sacculated like the large; a constriction of ilio-colic passage, and the contiguous colon much distended at this point; liver closely adherent to diaphragm; gall bladder distended with bile; kidneys seem healthy; considerable quantity of feces in intestines; heart healthy; old pleuritic adhesions; scattered tubercles in apex of right lung; and a large, defined apopleptic effusion at its lower part. Head not examined.

#### EPILEPSY—RELIEF.

Under the care of Dr. Watson (ward 4). Margaret Johnston, aged eighteen; Scotch; weaver; single.

May 12. Complains of dull pain in forehead and temples, tenderness of the epigastrium, and tenesmus; nine days ago had convulsions, followed by insensibility, which remained for three hours; she was bled, both locally and generally, and at present has an open blister on nape of the neck; since first attack has had numerous fits. Disease first showed itself when patient was eleven years of age, and continued for five years, manifesting itself usually once a fortnight; for two years she was perfectly free from disease; attributes origin of malady to a fright; is seldom aware of approach of fit; never has aura epileptica, but sometimes giddiness; face is swollen; gums sore, from mercury, taken four days ago; has slight dry cough; respirations 38; chest sounds normal; abdomen soft; epigastrium tender on pressure; occasionally has nausea and vomiting; bowels very open; tenesmus; all of which she attributes to the calomel; tongue furred; stools dark-coloured; some pain and difficulty in micturition; urine passed in small quantities; skin cool; pulse 92; some thirst; appetite indifferent. Hab. stat. enema aquæ tepid.

13. No fit since admission; tenesmus relieved by enema, otherwise as at report. Milk diet. Abrad. capillit. Hab. stat. ol. ricini 3ss. Urgent. paroxysm. sumat. Tr. valer. 3j.

15. No fit since admission; complains much of frontal headache; blister healed; bowels well opened. Adhib. nuclæ c.e. ut edue. sang. 3vj. Capillis capitis abradis applic. vesic. eapit. dimid. poster.

16. No fit; relieved by cupping, but still much headache. Aperiat. arter. temporal ut edue. sang. 3vj. Contr. alia.

17. Relieved by bleeding. Rept. vesic. nuclæ.

19. Pain in forehead again very bad. Aperiat. iterum arter. temporal ut edue. sang. 3vj.

20. Relieved. Contr.

23. Still headache; no fit. Aperiat. arter. temporal ut edue. sang. 3vj.

24. Relieved again by bleeding. Contr.

27. Headache again severe. Adhib. assidue capiti lintæ aquæ gelid. madefact.

30. Headache less; no fit. Introduce. setæ nuclæ.

June 3. Again complains of head; tongue clean; bowels rather confined; pulse moderate. Hab. omne nocte extr. hyoseym. gr. iv. 2nda q q. mane haust nigri 3ij.

8. Much improved; headache nearly gone, only slightly in forehead. Abrad. capillit. Adhib. vesic. fronti.

13. Rept. vesic. fronti.

16. Headache nearly perfectly gone. Omitt. medic. Sumat. omne nocte pil. colocynt. e., ol. m. ss. Omne mane hab. affus. gelid.

18. Vomiting and purging during the night; still very sick; dejections dark-coloured. Sumat. stat. pulv. ipecac. 3j.

Rx. Calomelanus. gr. vj.; pulv. opii, gr. ij. Divid. in pil. iv. Sumat. j. 3tia q.q. hor. incip. tertia hora post emet.

19. Emetic acted rather severely; shortly after its administration she became affected with severe spasmodic twitchings of her body, bending her backwards, as in opisthotonos; arms and legs became rigid, and remain so; the thumbs and great toes pressed strongly inwards. Since eleven A.M. to-day she has not spoken; before which, however, she spoke sensibly, and said her state is similar to what it was prior to admission. Breathes with a kind of singultus; pulse 96, small and feeble; heart's sounds normal; pupils contract well; had a small natural dejection from an enema. Hab. stat. enema, c. ol. terebinth., et post alv. plene fluat. enema, c. tr. opii 3ij. Adhib. sinapism. epigastr. Abrad. capillit. et frict. eaput c., sp. eamphor. Hab. sp. hordei 3iv. part. vicib. in dies et vesp. si reman. in eod. statu repet. enemata.

20. Last night, after having been somewhat relieved, became again affected with the spasms; her whole body became rigid, her head and haunches being made to approach each other; her limbs, when put into any position, remained so, as in catalepsy; her pulse before fit 72, during it 116; small upper part of spine blistered. Two drops of eroton oil given by mouth; a turpentine enema, followed by an anodyne, administered. Croton oil produced vomiting; at present is sensible and relaxed; pulse 116; tongue dry; two stools, dark and very fetid, from purgatives; complains of head. Sumat. stat. pulv. purgans et post hor. iij. Haust. nigri 3iv.; vesp. hab. enema c. ol. tereb. si opus sit; et postea enema anodyn. e. te. opii 3ij. Contr. spirit.

24. Fit completely gone; complains of headache and lassitude; dysuria; bowels confined; pulse 100. Hab. stat. pulv. purg. (calomel et jalap) et o.n. pil. colocynt. e. ol. eroton gr. jss. Utat omne mane affus. tepid. Sumat. ter in die. sp. æth. nitros 3j. Omitt. alia.

25. No stool; spasms have not returned; feels very comfortable, except some uneasiness in epigastrium; pulse 72, soft. Adhib. sinapism epigastr. Sumat pil. colocynt. e. ol. eroton 2nda q.q. donec fluat. alv. Vesp. injiciat enema c. ol. tereb.

26. Minuat sp. hordei ad 3ij. Contr. alia.

27. Vomits frequently; bowels still disordered. Omitt. pil. colocynt. Sumat. tert. q.q. hora. Pil. aloet. ij. donec vj. sumebant. Cras ni. hab. haust. nigri 3iv. et. rept. post hor. iv. s.o.s. Contr. alia.

28. Vomiting ceased; bowels in better order; feels well and cheerful. Omitt. spirit.

July 1. Continues somewhat better; wishes to go home. Dismissed.

*Incurable Ulcer on the Face of a Stump left after Partial Transverse Amputation of Foot; Amputation at Ankle-joint; Sloughing of Flap; Phlebitis; Death.*

Under the care of Dr. Hannay (ward 3). John Esdale, aged 32; Scotch; railway guard; married.

August 11. About three years ago, sustained a severe injury on Ayrshire Railway, after which it was deemed necessary to remove right leg immediately below knee, and a portion of left foot; recovered perfectly from operation, but stump of left foot never healed; has been several times

treated in this house by different surgeons, but without advantage. Patient is in perfect health, of robust and muscular frame, and says that ulcer is only inconvenient from its situation. Operation performed on foot seems to have been that of removing only the metatarsus; cuboid bone at least remains in stump; os calcis is much drawn up by the gastrocnemius, and face of stump points directly downwards. On the anterior aspect of stump, exactly over cuboid bone, is an oval ulcer, about two inches in length, and an inch in width; its edges are somewhat elevated and callous, and show no trace of its having cicatrized. Granulations are stunted, brownish-coloured, and flabby; there is no bare bone; and patient is not aware of any pieces of bone ever having come away. A probe can be passed into a soft cartilaginous substance through an ulcer to the depth of half an inch; the rest of tarsus seems perfectly healthy; no pain on pressure on any part of it, or on motion of ankle-joint, and there are no fistulous openings in connection with any part of it; no other complaint.

20. Limb has been dressed in the usual manner for the last few days, and yesterday was shown to a consultation, when, it being agreed that ulcerated surface could not be healed, it was determined to remove the diseased parts. Some difference of opinion took place; the removal of the cuboid bone alone, *i. e.*, performance of Chopart's operation, amputation of the leg, and at the ankle-joint, being each recommended. Dr. Hannay, afraid that tarsus might be diseased, and deeming leg quite sound, determined on removal at ankle-joint. To-day, the operation was performed as follows:—A tourniquet being applied over femoral artery, an incision was made with a bistoury, from the external to the internal malleolus, convex in shape, and anterior to ankle-joint. Another incision was made directly downwards, from the inner ankle through plantar surface of foot, round to outer malleolus. The skin and soft parts were then dissected from os calcis backwards, and upwards as high as level with the joint, which was opened; the tarsus removed, and the malleoli cut off with saw; four ligatures were applied; the flaps brought down, and held together by adhesive plaster and bandage; the hemorrhage was moderate; the patient complained much of pain during operation, which was tedious. Middle diet. Hab. quamprimum tr. opii m. xx.

21. Had retention of urine this morning, requiring catheter; expulsive power now returned; a restless night; limb easy; thirst; tongue white; no dejection; pulse 100. Has been in the habit of taking spirits. Hab. pil. aloetie ij., 6ta q.q. hor. et enema domestic si opus sit; hab. in dies vini rubri, 3vij.

22. Feels better; complains of want of sleep. Hab. h.s. pulv. Doveri, 3j.

24. Stump, to-day, looked at; posterior flap gangrenous; no complaint; pulse quick, sharp. Contr. Water dressings to stump.

29. Yesterday had several severe rigors, followed by febrile symptoms; at present pulse 108, small; respirations 36; perspires copiously; vomits occasionally; loathes wine, and wishes for spirits instead; bowels regular; tongue white; thirst; stump looked at regularly; flap cicatrizing; lower third of leg swollen, but not painful. Contr. omnia præter vin. Hab. in dies sp. hordei, 3iv.; hor. somni hab. tc. opii, m. xx.

30. Had another rigor this morning; constitutional symptoms much as yesterday.

Rx. Chlorid. calc., 3ij.; aq. pur., lbij. Utat. pro lotione. Appl. cruri cataplasma cerevisiæ. Augeat. sp. hordei ad 3vj.

Sept. 1. Some diarrhoea. Hab. enema anodyn., c. tr. opii, m. xx.

2. Febrile symptoms continue; countenance becomes sharp and anxious; deep jaundiced hue of conjunctiva and surface generally; bowels still loose; flap separated; stump very tender; leg considerably more swollen, red, and painful; purulent matter burrowing under skin and muscles of leg, and escaping by surface of stump; wishes for some porter. Rep. enema, c. tr. opii, 3j. Contr. spiritus. Hab. cerevis. fort. lbj. in die.



3. Not much change; relishes porter. Augeat cerevis. ad libij.

4. Jaundiced hue grows deeper; respirations 42, abdominal and laborious; skin warm, moist; pulse 108, quick, small; voice feeble; countenance very anxious, expressive of extreme exhaustion; retention of urine; tympanitic swelling of abdomen; limb said to be easy. Hab. stat. enema c. cl. terebinth.

5. Jaundiced hue still deepens; febrile symptoms continue; swelling of limb increased, and irregular redness spreading up limb, as far as lower part of thigh. Passed a restless night; respirations very quick; voice weaker; face more anxious; pulse very rapid, weak. Hab. haust. effervesc. p.r.n. Contr. alia.

6. Moribund.

7. Died this morning at one A.M.

8. Autopsy 36 hours after Death.—Post-mortem rigidity great; erythema of leg and jaundiced hue well marked; brain and membranes of a deep yellow colour, otherwise healthy; a little bloody serum in pleuræ; bronchial mucous membrane very dark; several small phlebotic abscesses in lungs, which are much congested, but otherwise healthy; heart contains much fibrinous coagulum on both sides; lining membrane very darkly dyed; liver healthy, but soft; portal veins deeply stained; stomach healthy, save a few deeply-congested patches of mucous membrane; alimentary canal seems sound; spleen very soft and pliable; kidneys soft, and in the left commencing granular degeneration; iliac and femoral veins of left limb deeply stained, but no trace of lymph or coagula; pus in popliteal vein; stump much burrowed by matter; tendons and their sheaths sloughy; stump of right leg examined; integument adherent over tibia and fibula; some difficulty of dissecting off skin from membrane covering end of bone, which was continuous with periosteum, but more dense in structure, and could not be peeled off like periosteum; a longitudinal section of tibia and fibula showed a thin layer of compact osseous tissue covering the end of medullary canal; extremities of both bones rounded off; on the anterior and posterior tibial nerves, small elongated ganglia found; muscles did not seem closely attached either to bone or cicatrix.

#### STATISTICAL AND MEDICAL DETAILS TAKEN FROM THE REGISTRIES OF THE LIMERICK LYING-IN HOSPITAL IN THE MONTH OF DECEMBER, 1843.

(Embracing a period of twenty years, from Jan. 1, 1823, to the close of December, 1843.)

By W. R. GORE, Esq., M.D., M.R.I.A., F.R.C.S. Ireland.

The following report embraces a period of twenty years, viz., from January, 1823, to December, 1843; but, from the cases being entered in two different registries, I am obliged to divide it into two periods. The first, from January, 1823, to December, 1839. During this period the formal registration was extremely imperfect, in consequence of which many important statistical details cannot be obtained, in regard to the average age at marriage, the character of some presentations, and the mortality peculiar to these. The deaths of the infants cannot be accurately ascertained. From January, 1823, to December, 1839:—5,418 cases were admitted; 77 were discharged undelivered; Of these, 5,047 were from the city, and 371 from the counties. The number of infants born to the 5,341 women delivered in the house, were 5,413: 2,851 boys and 2,559 girls—72 being twin cases. Of the entire number delivered, 5,152 were natural labours and natural presentations, requiring no aid but that of the midwife of the house; 189 were unnatural labours, requiring medical aid, with the exception of 29 cases of arrest of the head, of which 27 were delivered by the forceps, and 2 by the perforator. In one of the twin cases one of the children was born twenty-four hours after the first. One woman had three daughters: one, her first child, after eighteen years' marriage; another after ten years. There was one case of clubfoot, and one child had six toes on each foot. There is only a

record of 60 deaths amongst the infants, which | appear to be far short of the probable number.

#### Abstract of the Cases from 1823 to 1839.

Number of Persons Admitted.	Discharged Undelivered.	Number of Infants Born.	Boys.	Girls.	Total Delivered.	Number of Twins.	Boys.	Girls.	Presentations.								Mode of Delivery.			Hemorrhage.		Deaths.		
									Breech.	Footling.	Arm.	Shoulder.	Face.	Knee.	Funis.	Placenta.	Natural.	Forceps.	Turning.	Perforator.	Accidental.	Unavoidable.	Mothers.	Infants.
5,418	77	5,413	2,851	2,559	5,341	72	37	35	9	7	4	1	5	1	2	3	5,311	27	8	2	6	2	56	60

Head presentations requiring no aid	5,282
Head presentations requiring instrumental delivery	29
Other presentations requiring manual aid	30
Total delivered	5,341

The statistical reader will observe at once how very much out of proportion the forceps, the footling, the face, and the arm cases, are to the number delivered. The number of stillborn children is, from imperfect registration, far below the ordinary average, so that in these particulars no accurate calculations can be made from the returns.

The second period embraces three years, from 1840 to 1843, inclusive. A new and vastly improved form of registration was now introduced; one, however, which requires some amendment, or rather addition, to render it yet more useful. 1,448 females were admitted and delivered during these three years: 1,316 from the city, and 132

from the counties. 1,403 were, or had been, married; the number of widows being 7; 45 were unmarried. I have given, in the abstract, at the conclusion, the average age at marriage. 1,250 natural presentations, requiring no assistance; 198 obtained medical aid. There were 14 premature cases:—1 at three months, 1 at five months, 2 at six months, 9 at seven months, and 1 at eight months. There were two cases of closed vagina—one natural, and the other the result of a cicatrix. In one arm presentation spontaneous evolution took place; and one woman, who, having married at the age of 49, had her first child at fifty-two—a living female.

#### Abstract of the latter Period.

Total Cases Admitted.	Discharged well.	Died.	Married.	Single.	Presentations.								Hemorrhage.		Retained Placenta.	Honglass Contraction.	Infants.				Average Age at Marriage.					Twins.	
					Head unaided.	Arrest of Head.	Face.	Footling.	Breech.	Arm.	Funis.	Knee.	Before Delivery.	After and during Delivery.			Males living.	Males dead.	Females living.	Females dead.	From 15 to 20.	From 20 to 25.	From 25 to 30.	From 30 to 35.	From 35 to 40.		From 40 to 50.
1,448	1,433	15	1,403	45	1,250	63	33	22	20	15	6	1	3	13	6	2	733	60	635	45	578	565	212	39	6	3	25

In the entire period of twenty years, 6,789 women were delivered, of whom 71 died—a mortality of 1 in every 100 and a fraction. In the latter period of three years, the deaths of the infants were very regularly entered; the average mortality appears to be 10 in every 100—a greater number of male infants having died. In the twin cases the number of double females predominate; next, double males; and, lastly, male and female: exactly the reverse of the general occurrence. Two of the twin cases were footlings, two heads, and one a foot and head. The average of twin cases, in the entire number, is about 1 in 70, which corresponds pretty accurately to that in the general report of British practitioners. It will be observed that in the births the boys have a good majority, and a similar result is obtained from the general total of the twin cases. The average of presentations of the lower extremities, in the last period, is about 1 in 65 I-3 cases, which is high; and that of the superior extremities 1 in 96½, a very high average also. I believe the highest average on record is that of the French practitioner, M. Ramboux, which is 1 in 122½ cases. The face presentations, 1 in 179, which is also high, as the general average is 1 in 291½. In the breech cases, the average is low, 1 in 72 2-5. Funis, 1 in 241½, nearly the average of general practice. Retained placenta, 1 in 241½; this average is much above the general, which is 1 in 661½, taking that of different countries. It is, however, below the averages recorded by Drs. Cusack, Granville, and Siebold, whose cases combined make about 1 in every 40. Hemorrhage, 1 in 9½, which is nearly double the general average. Forceps, nearly 1 in 23, of the latter period; 1 in 75½ of the twenty years—both a very high general average. It will be observed, that I have not given the average mortality of the different presentations, or the risk to the mother in each; neither have I given the average duration of labour.

I may here observe, that having had a very lengthened residence in the Wellesley Female Institution, under Dr. Cusack, when in Dublin—during a good portion of the latter part of which I acted as assistant to him, in inducting

the beginners into the ordinary practice, and in attending the very bad cases—I had ample opportunities of observing the great accuracy with which all the details were entered; upon the averages given by him the utmost reliance may be placed. Of the Limerick Lying-in Hospital I may observe, that there is not an institution in the kingdom better conducted. The Ladies' Committee evince the liveliest anxieties with its proceedings; and the gratuitous care bestowed upon it by the medical officers is very far above all comment. At another time I will place before your readers the statistical details of the Limerick Lying-in Institution—an establishment which I have attended for the last fifteen years—for extending assistance to poor females in difficult labour at their own homes. The average of the presentations above given are almost all taken from the second period, from its greater accuracy. In the average age at marriage, it will be observed how very nearly the numbers between 15 and 20, and 20 and 25, correspond; and how far below these numbers all the marriages from 25 to 50 are: a vast majority marrying between 15 and 25,—those from 15 to 20, however, being the most numerous. On looking at the premature cases it will appear that a great majority occur at the seventh month of pregnancy.

#### TRANSACTIONS OF LEARNED SOCIETIES.

##### MEDICAL SOCIETY OF KING'S COLLEGE, LONDON.

FIRST MEETING OF THE SESSION, NOV. 12.

Dr. TODD, President, in the chair.

The President, on taking the chair, congratulated the society on the numerousness of the meeting, and gave a hearty welcome to the large number of visitors present. He expressed the highest approbation of the objects of the society, and of the efficient manner in which they had been carried out; and pointed out the anxiety and diligence shown by Dr. Rayner, vice-president, and Mr. Pittard, honorary secretary, in the affairs of the society, as meriting honourable ac-



knowledge on the present occasion. He recommended the introduction of discussions on cases, at the ordinary meetings—a course which, he thought, would tend greatly to advance practical medicine and surgery. He would now call upon Mr. Smee for his promised introductory address.

Alfred Smee, V.P., F.R.S., stated that the society was instituted by the unanimous desire of the students, to afford opportunities for mutual improvement; but, if any students had more share than others in the foundation of the society, the credit must undoubtedly be given to Messrs. Druitt and Challice.

The society was especially instituted to encourage observation, the facility of employing language in writing and speaking, the habit of reasoning from facts, and the deduction of truth by free discussion.

He then called attention to the scope of the society, which he stated has always embraced the whole range of natural knowledge. Papers have been read upon the properties of matter, the forces of attraction, light, heat, sound, electricity, and magnetism; the various sciences emanating therefrom, as chemistry, geology, astronomy, &c.

The society next considers organic bodies—bodies existing in two physical states, and which are not only held together by internal forces, but are also continually undergoing changes, by the action of the external forces of heat, light, and other forces.

The society has had papers upon plants, animals, and man—the most exalted of organized beings. From man, the society has been led to the consideration of mind, life, and death; and from these, to the great First Cause of natural phenomena.

The society has also considered the correlations of the knowledge drawn from inductive philosophy, with those drawn from revealed religion; but that the society was always anxious for both roads to be followed independently, and neither made to bend to the other, as the end of both must be the same.

The society also discusses the action of matter upon the body, the body on the mind, and conversely the mind upon the body. The question of abnormal action or disease, and the various localities in which disease occurs.

The society has also, on various occasions, considered various pseudo-sciences—as those of mesmerism, phrenology, homœopathy, animal magnetism.

By these means, Mr. Smee stated, the society had given rise to many excellent papers; and, moreover, that its members, having been well trained in original investigation, have produced many valuable works, and several of the members have been elevated to the rank of lecturers.

Mr. Smee then alluded to the prizes awarded by the society, and called particular attention to the valuable assistance rendered by Dr. Rayner in promoting these rewards, and in giving a medal to promote discussion.

Mr. Smee then stated, that being unwilling to come before them without some contribution, he would exhibit a surgical invention of his own. It consisted in the application of guttapurcha for various surgical purposes. He stated—

“I have employed this substance, when rolled out into tablets, for the formation of splints, similar to those which I described as being made from the moulding tablets in the ‘Medical Gazette’ and ‘Lancet’ for the year 1839.

“It has advantages over the moulding tablets which I there described, inasmuch as tablets of this material, rolled to the required thickness, are more easily moulded into the required form when soaked in hot water.

“It has, moreover, advantages in its being impervious and uninjured by water, alcohol, ether, acid, and alkaline solutions; and, therefore, especially applicable to interrupted splints, where an aperture is required to be left for the application of these substances.

“It is not so good, however, as the moulding tablet, inasmuch as it retains the perspiration,

while the moulding tablet transmits it. This difficulty may be overcome by puncturing numerous holes in the guttapurcha, or by lining it with a piece of thin lint, which allows the perspiration to escape. If the perspiration is retained, it irritates and excoriates the skin.

“I have employed this substance for fractured limbs and diseased joints; I have also found it of great value, after the division of tendons, for contractions; and also extremely valuable in cases where pressure or counter-pressure is to be employed, as the force may be then distributed over a large extent of the body.

“The moulding tablets for fractures are, in my opinion, not as much employed as they deserve, solely, I believe, because surgeons do not like the trouble of their preparation. Under these circumstances, I hope that guttapurcha tablets will cause a far more extensive adoption of this form of splint.”

Lastly, Mr. Smee called attention to the duties of the various grades of the society, and congratulated the members in having the very able and kind assistance of Dr. Todd, for their President. He concluded by inviting free discussion upon all points presented to their notice; as he reminded them, that “the grand, and indeed the only, character of truth is, to remain unchanged under every possible form of fair inquiry.”

Dr. Rayner said, he could not allow the opportunity to pass without acknowledging the compliments paid him by the President and by Mr. Smee. Fifteen years had elapsed since he first entered King's College as a student, and during that period he had felt the deepest interest in the prosperity and welfare of the Medical Society in connexion with the College. It was particularly gratifying to him, that his efforts had been so flatteringly acknowledged by those who some few years since were his teachers, and whose good opinion he was always ambitious to obtain. The success of the society must now be obvious; the triumphs of the past must encourage us to hope well for the future, and induce us all to labour on for the accomplishment of our objects with the greater zeal, from the assurance which the past gives of ultimate and complete success in all enterprises undertaken with disinterested and good intentions. In submitting the following resolution, he felt assured that he was but echoing the unanimous feelings of all present,—“That the thanks of this meeting be given to Mr. Smee, for the eloquent address delivered by him this evening.”

Mr. Pittard seconded the resolution, and availed himself of the opportunity to inform those who had recently become members, as to the exact nature of his duties towards the society as permanent honorary secretary (permanent only during the pleasure of the society, but not going out of office at stated periods). He felt gratified by the acknowledgment of his services by the President: his exertions were more than amply repaid by the success of the society. He could not conceive how, in the present day, a medical man can witness the giant steps of engineering and other sciences and arts, and be contented with doing one iota less than his utmost to urge on his own art to similar advance. Could they calmly see medical art left behind? For the last two years he had been so circumstanced as to be able to perform the important and somewhat onerous duties of secretary to the society, and he felt convinced that he could not have employed the time he had spent in the society's affairs in a way that would have tended more to advance that science and that art to which his life was consecrated. He had, this year, as a colleague in the office of secretary, Mr. H. Stevens, well known for zeal and activity; and he felt the greatest satisfaction in seeing the President's chair filled by one so pre-eminently imbued with the spirit of inquiry.

Mr. Stevens announced the names of several candidates for membership.

A vote of thanks to the President of the meeting was proposed by Mr. Rhodes, and seconded by Mr. Webb, which having been acknowledged, the meeting resolved itself into a *conversazione*.

## ETHNOLOGICAL SOCIETY.

Meeting of Nov. 11; Dr. PRICHARD, President, in the Chair.

This being the first meeting of the session 1846-7, Dr. King furnished a report of the proceedings of the Ethnological Section of the Southampton Meeting of the British Association.

The President then took a brief survey of the actual state of ethnology, and afterwards submitted a paper on the Malayo Polynesian Races. The study of ethnology, in the opinion of Dr. Prichard, requires the cultivation of several different branches of knowledge. The physical department of ethnology calls forth accurate anatomical and physiological researches into the peculiarities of human races; but this cannot be made available to the history of nations, and their mutual affinities or diversities of origin, without assistance derived from other sources. Among these aids the most important and generally applicable are the examination and comparison of languages. The term philology, which is often given to this pursuit, is too vague in its meaning, and it has often been appropriated to inquiries connected with classical literature. We want a more definite expression to denote that study of languages which is subservient to ethnology, and which assists us in tracing the mutual relations and origin of the different tribes or races of men. Comparative glottology, or comparative lexicology, is the more obvious term for this new science, for it really deserves that name. It is a more legitimate expression than linguistic science, which some writers have adopted. Other sources of information which contribute in aid of ethnology may be included under the head of history, or more definitely, archæology. This comprises all that can be collected from the writings of ancient historians and geographers—all that the poetry, mythology, and literature of different nations afford in elucidation of their origin and affinities, as well as everything that can be gleaned from the remains of antiquity, inscriptions, and various works of art scattered through different countries. After giving several facts in support of his views, Dr. Prichard pointed out the greatest steps of advancement which have been made in these several branches of study.

The name of Malayo Polynesian is given to all those nations of the Great Southern Ocean whose dialects have been found to bear an affinity to the language of the Malays. This is well known to be the case with a great number of tribes spread over different groups of islands from Madagascar to Easter Island. In the first age of the history of this people, the collective body existed nearly in the same state as the Tahitians and New Zealanders of the present time. It was during this period that they were spread over all the islands of the Indian and Pacific Oceans. A second period in the history of the race begins with the early colonization of Java. It is uncertain whether this event took place at the commencement of the Javanese era, but this is the most probable supposition. The Indoizing Javanese formed dialects by amalgamating the pure Sanscrit of their colonists—perhaps conquerors, at any rate civilizers—with the old Polynesian, and formed the Bhasa Dhalem, and at length the poetical and literary language, the Kaur. They spread their conquests far and near over the Indian seas. The extent of their conquests or colonization, or of the influence of their religion and literature, may be traced in the history of particular tribes; Sumatra and Celebes, and the continental Malayan peninsula, were near to the centre of this influence. The third period is the Mohammedan. The decline of Javanese influence was perhaps coeval with the extension of Islam on the ruins of Hinduism. The Pagan worship and the Indian form of society still exist in the island of Bali, near Java, whither the Brahmins retired on their expulsion from Java by the converts to Mohammedanism.



## REVIEWS.

*Flora Calpensis: Contributions to the Botany and Topography of Gibraltar and its Neighbourhood.*  
By B. F. KELAART, M.D. 8vo., pp. 219.  
London, 1846.

We have been much pleased with the perusal of this volume. After a judicious introduction, it gives a short sketch of the early history of Gibraltar, with observations upon its importance to Great Britain; then passes on to consider its geographical position, its geological characters, its sources of water, its meteorology, and the nature of its climate. This, Dr. Kelaart considers, for the most part, to be not healthy. The changes of wind are sudden and severe, owing to the exposed situation of the rock; but a south-easterly wind, which the people consider very unwholesome, generally prevails for half the year.

"The climate of Gibraltar," says our author, "had been represented to me as equal to any in the south of Europe, but great was my disappointment not to find what I expected. The heat of summer is more oppressive than even the thermometrical observations would indicate, owing principally to the want of a free circulation of air, which is prevented by the height and peculiar configuration of the rock, most of the winds blowing only in certain quarters of the rock; and often, when raging tempestuously on the eastern side, there is scarcely a breath of wind in the town of Gibraltar: then, the only consolation the inhabitants have is a dense fog, which rather cools the air."

"The summer nights retain nearly all the heat of the day, there not being sufficient time for the rock to become cool before the sun rises again. The reflected heat from the rocky surfaces of Gibraltar is of itself a great source of suffering to the inhabitants."—(Pp. 28, 29.)

"What renders the climate of Gibraltar distressing to invalids is the prevalence of the easterly wind, or Levanter, which blows, sometimes, for four or five weeks together; and during nearly all this period, thick dark clouds hang over the rock, and the fog on the neutral ground is frequently as thick as any November fog in London. Various are the sensations ascribed to the Levant wind, but the general one is that of lassitude and dulness of spirits; and frequently one feels as if covered with a wet blanket, or walking, when heated, in a damp cellar."—(P. 30.)

Dr. Kelaart enumerates the various occasions on which Gibraltar has been visited with yellow fever, and makes some very sensible comments upon the pathological character of it. Denying, and very properly, its contagiousness, he further doubts whether it be a disease *sui generis*, but rather regards it as an aggravated or a peculiar form of the remittent fever of warm climates. In this belief he is not novel, for it was first broached several years back, and has since that time had many supporters; nevertheless, his observations are very acceptable, backed as they are by certain valuable matters of fact.

"I must confess," says he, "that my faith in the doctrines of most schools, that the yellow fever is a distinct disease from all other forms of fever, has been much shaken, from the recent prevalence of a 'nondescript' fever on board her Majesty's ships Caledonia and Formidable, whilst in the Gibraltar Bay, during the late disturbances between Morocco and France. The former vessel was fresh from England, and the latter from Malta, and had been only a few weeks off Gibraltar, when a fever broke out among the crews, several of those labouring under it being admitted into the military hospital when I was doing duty there. All, however, did not present the same symptoms, but the majority had the deep yellow colour of the skin, and one fatal case had many symptoms which even the most experienced pronounced to be those of yellow fever. Here, then, we had patients suffering from the mildest form of remittent fever to that of the severest form of yellow fever—all occurring on board the same vessels; the disease, at the same time, not attacking, to the best of my knowledge, any on shore, and it left the vessels immediately

on going to sea. To what cause are we to attribute the fever in this case? Surely to a local origin, though perhaps not to one on shore, for there it was likely also to have prevailed amongst the inhabitants. The only circumstance I observed which might in the slightest degree be supposed to have contributed to the production of the disease, was the stench along the Line-wall, produced conjointly by the effluvia from the sewers which empty there, and the gaseous emanations from the decomposition of seaweed, &c.; and, although I do not wish it to be inferred that sulphuretted hydrogen is the cause of yellow fever, I may here remark, that Major Tulloch observes, in his valuable Medical Statistical Report on Gibraltar, that the yellow fever prevailed as an epidemic, more in some situations than in others, particularly along the Line-wall facing the sea."—(Pp. 34—36.)

After a description of the town of Gibraltar, we come to its botany, at first generally descriptive, and afterwards more in detail, with a neat classification of the vegetable productions of the rock and its environs. This it would be foreign to our purpose to enter into; but we cannot close the volume without expressing our approbation of the able manner in which Dr. Kelaart has executed his task; and we have much pleasure in recommending his interesting work, both to the general and the professional reader.

*Statistics on Longevity.* By M. BENVISTON DE CHATEAUNEUF (Annales d'Hygiène).

M. Benviston de Chateauf, founding his statements upon numerous documents, published in France, England, Germany, Italy, &c. &c., since the beginning of the nineteenth century, establishes the following results, which are at variance with many of the existing tables of mortality:—Of a thousand individuals of both sexes taken at their birth, 443 survive at the age of 30, 245 at 60, 180 at 70, 110 at 80, and 13 at 90.

## TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

Mr. Savage's letter on the unfavourable effect exercised by the Provincial Medical and Surgical Association on the public interests of the members of the College of Surgeons enters so largely into what has been said, and will be said in due course, on the same subject, that he will probably himself excuse our non-insertion of it.

A Student (Birmingham), who inveighs so strongly against any Registration Bill which shall give the possessor of any medical diploma, obtained by any course of study, however short or imperfect, in any locality, titles to practise, equal or superior to those he will enjoy from the long courses of the Apothecaries' Company and College of Surgeons, should address himself to the Council of the Provincial Association. To get the honour of being registered as consulting physicians, and superior surgeons (fellows), they are willing to confer on the profession any amount of injury under the head touched by our correspondent.

The Editors of the "London and Provincial Medical Directory" present their compliments to the Editor of the "Medical Times," and will feel greatly obliged by his making it known through

the pages of his journal that they are most desirous of obtaining correct information on the following heads, from all the medical charities in the kingdom, for publication in the forthcoming Directory, viz.:—Designations of the Medical Institutions; the number of beds they respectively contain; the medical staff of each; the average number of in and out patients; and the Schools, if any, in connection with such medical charity.

The Editors of the Directory would esteem it a great favour, if those gentlemen who have not already done so, would forward the required information from the medical charities to which they are attached. 46, Prince's-street, Leicester-square.

A Steadfast Supporter has been anticipated in his suggestion. We have already done the act of justice proposed to us. When the hon. member was so grievously charged in the House of Commons, we published the report of the trial between himself and the insurance company, exactly as given in the "Annual Register." The report appeared in the Medical Times, July 20, 1844. We, simple as we were, fancied that we were doing the person a service. Judge, then, our surprise, when the next number of a certain journal denounced the report as an infamous fabrication, pledged the writer's veracity that the matter should be instantly submitted to counsel's opinion, and threatened we know not what. We have heard, of course, no more about the matter.

Numerous Correspondents, who have addressed us on the subject of the Apothecaries' Company of England, and Scotch and Irish practitioners in England, are informed that we have no reason to fancy that the society contemplate any wholesale prosecutions, except against empirics; that, if they do, we would lend them no support in such a direction; and that we believe the end and aim of all classes of medical reformers, and especially of those composing the National Institute, is, while legalizing all legitimate practice—no matter whence the source of the diploma, if British—to take care that the present body should not have their respectability and practice injured, for the future, by inundations from any college or university where a high standard of education is not upheld.

Mr. Armstrong's letter we are obliged to decline for two reasons. 1st. It is an answer to charges not made in our journal, and in which our readers and the profession have therefore no interest. 2nd. A personal question of veracity is so offensively involved by the correspondence, that we should be immeshed, not only in a libel case, but in a libel case for which we should have no justification. The latter contingency is one in which we never place ourselves. We are obliged by Mr. Armstrong's communication to ourselves.

B.—The Affidavits in poetry will not suit our grave columns.

A Subscriber, who does not favour us with his name, calls our opinions on the Provincial Association "unwarrantable," and warns us against the hostility of "the whole medical press." Our answer to our anonymous friend is, that we are prepared to welcome any hostility on the part of an out-distanced rival. The public understand already that (as changes of price, size, and matter indicate) our contemporaries owe us as little, as the profession owes us great gratitude. Our maxim is: "fais ce que dois, arrive que pourra." It has answered passably well hitherto, and the future is at least as promising as we were prepared to expect it. As to the threat of a discontinuance of subscription, our correspondent is at fault in his calculations. When the Medical Times ceases to be worth what is charged for it, we shall begin to beg a continuance of our correspondent's "patronage"; not before.

Mr. Kay's condolences are misplaced. It is true the Medical Times office has been burnt down; but not till after the Medical Times had left it. Moreover, it was not insured. In fact, the house destroyed (in Wellington-street) has ceased to be used as our office for a considerable time.



If J. P. will conform to our rules, and favour us with his name (in confidence, if need be), we will publish his letter.

A Member.—We do not suppose that the Apothecaries' Society can disturb the practice of any gentleman, legitimately a medical practitioner, who so far lends a helping hand to sound views of legislation, as to support with his exertions and purse "the National Institute of Medicine, Surgery, and Midwifery."

E. C. A.—We would recommend our correspondent to apply to Dr. Cooke, Caroline-street, Bedford-square, who will furnish him with the particulars he requires. Edinburgh is usually considered the most eminent of the Scotch universities.

If An Old Looker-on will give his name in confidence, we will publish his letter. That a person should aim at public life—political and medico-political—who, to omit other matters, got into the Apothecaries' Society by a fraud, and pretends even to this day to a physicianship he does not possess, is, if true, an odd sign of the times—and calls certainly both for inquiry and animadversion. The press would exist to little purpose if public interests are to be intrusted to such hands.

M.D., on the "Practical working on the pharmaceutical public of such anomalous confederacies as that at Worcester," shall be inserted in our next number, if we can purvey space for it.

Mr. W. Cory (of Arundel-street, Haymarket) forwards us a case of detention of urine, from spasmodic stricture of the urethra, of long continuance; the novelty in the treatment of which, and the very satisfactory results thereof, he thinks will be interesting:—"Henry Hill, aged forty-two, a porter, in the employ of Messrs. Cox and Greenwood, army agents, Charing-cross, had for some time been greatly distressed, and had been subjected to various kinds of treatment, both medical and surgical, without success. I saw him frequently, and could at any time, with patience and perseverance, pass a No. 12 gum elastic catheter; and, although this was accomplished every second or third week, for the space of a year, and from which he found much benefit, still he would be attacked with retention once, if not more frequently, every week; rendering his life a burden to himself, and incapacitating him from following his occupation; causing much anxiety of mind, as to the maintenance of a numerous increasing family, dependent entirely upon his exertions for support. On the 30th of September last, seeing that myself and many others of my brother practitioners had been baffled in our endeavours to relieve him, I inserted a seton nearly two inches in length into the perineum, and the result is, that he has been perfectly free ever since from that distressing complaint, unaided by medicine of any kind; and that a No. 12 catheter will now pass without any constriction in any part of the urethra."

D. C. L. (Inner Temple) shall appear next week.

M. H. is sincerely thanked for his information. It will be most useful.

The affidavits of Mr. J. W. E. Wilson and Mr. Thomas Wakley are unavoidably postponed to our next number.

Erratum.—The paper recently published by us on Physiology was written by Mr. P. A. Brady, not Mr. H. Brady.

## THE MEDICAL TIMES.

SATURDAY, NOVEMBER 28, 1846.

"Indoctus quid enim saperet, liberque laborum  
Rusticus urbano confusus, turpis honesto?"—HORACE

WE promised, after having replied to a few of the exceptionable passages in Dr. Forbes' article on hydropathy, to investigate the practice of the quack Preissnitz, and his worthy followers, to discover what novelty might be found therein. We do this with some unwill-

ingness, for it has always been our conviction, that "every arrow shot at an inferior enemy dishonours the arm that pulls the bow"; and, in obedience to this belief, we are in reality as little disposed to break a lance with a set of rapacious cold-water-mongers, as to hurl a javelin at widow Welch, or fire a shot at Perry and Co. Apart from inducements of an extraneous nature, we could certainly have no motive in showing up, or putting down, hydropathic quackery; the world is quite welcome to it, if the said world fancy it a desirable commodity; and as some foolery must always be in the ascendant, for ignorant people to run after and talk about, why, for anything we know or care, hydropathy may as well play the clown to public caprice, as anything else. It may empty people's pockets, and shorten people's lives, to any extent they may choose to let it; the sacrifice is theirs, not ours; and if, in the face of legitimate warning, modestly given, the world will go wrong, we are happy in the consciousness of being no participators in its ruin.

We should have continued silent, as we have said, upon the subject in question, and willingly have left it to its fate, had the assumption not been put forth, that hydropathy is something new. That it is any such thing, except in so far as it is made a vehicle of imposture, and a cover for ignorance, we emphatically deny! There is nothing worth having in it, that is not legitimately ours; its varied applications, its excesses, its good results, and its bad ones, are matters of history with us, and were familiar to the scientific world long before the adoption of the cold-water cure by the needy adventurers who considered it a good patent for draining the exchequer of the people. We will now proceed with our evidences in proof of the absence of all novelty in empirical hydropathy. We shall give only as many references as are necessary to substantiate our position: very many more we could give, but our space is too much demanded to allow us to throw any of it away. Our research having been completed, we shall terminate these articles by a few plain inferences.

A great feature of wonderment in the practice of the hydropathic quacks, is the impunity with which they expose their patients to extremes of heat and cold. Like quacks in general, they only direct their voice to the ear of the million; and it need be no matter of surprise that, when a multitude of ignoramuses are told they may play with fire and water without danger, they begin to think the world is very much wiser than in the days of their grandfathers and grandmothers, from whom they received very different admonitions. To tell a stupid fellow, who never heard of such a thing before, that a *bonâ-fide* live man can be plumped into a bath hot enough to boil his blood, and then into another cold enough to freeze it, and all without killing him, is enough to make the clown's hair stand on end, and himself wonder whether the globe he inhabits is not turning into a large lunatic asylum. We know nothing more likely than this to create a fit of the grins amongst the many who are always ready to be astonished at anything. It is this unhappy many (mercy,

what a many!) whose heads, being only nominally such, are fain to borrow the services of other heads capable of doing their own work and something more, if they are paid for it; it is this many, we say, who trumpet forth the belief that, never since the days when Nebuchadnezzar ate grass, has there been anything to compare with doing a man service by scalding and starving him alternately. Talk of blowing hot and cold with the same mouth, it's child's play to necromancy like this. Such is the prattle of the unwashed tribe, who are fit offerings for the altar of Preissnitz!

Now, it so happens, that in all countries, and in all ages, the novelty of this German impostor has been a common practice with the people. It was a custom with the ancient Egyptians, to plunge themselves into cold water after immersion in hot; and this custom, remarked by Pythagoras during his travels in Egypt, was afterwards adopted by the Greeks. Pythagoras introduced it into Greece, and it became popular through his patronage.

The earlier bathing of the Romans was conducted on this plan. From the *caldarium*, or the *sudatoria*, the hot bath or the sweating rooms, the bathers plunged immediately into the cold bath. Great benefit was said to result from the practice, and it became especially popular after Antoninus Musa had cured Augustus of a severe disease by a frigid dipping; but its celebrity was lessened by the cold Alexander caught, on plunging into the Cydnus, after the sweating process of rescuing Tarsus; and was altogether lost when Marcellus suffered martyrdom on trying the same experiment. After this, the *tepidarium* came into fashion amongst the Romans, though the more effeminate of them used the hot bath alone.

In a very different quarter of the globe, and by a very different class of people, was this selfsame practice fashionable, in ages gone by. Lewis and Clarke, in their voyage up the Missouri, describe a vapour bath of the savage American tribes, in the Rocky Mountains. It was a hollow square, of six or eight feet deep, formed in the river bank, by damming up with mud the other three sides, and covering the whole completely, except an aperture about two feet wide, at the top. The bathers descend by this hole, taking with them a number of heated stones and jugs of water; and, after being seated round the room, throw the water on the stones till the steam becomes of a temperature sufficiently high for their purposes. Almost universally these baths are in the neighbourhood of running water, into which the Indians plunge immediately on coming out of the vapour bath, and sometimes return again and subject themselves to a second perspiration: and this bathing is employed by them either for pleasure or health, being in esteem for all kinds of disease.

The Russians, as everybody knows, have been in the habit, from time immemorial, of subjecting themselves to vicissitudes of temperature. After enduring a vapour bath, of a heat of 44 deg. Réaumur, until they are perspiring excessively at every pore, they plunge themselves instantly into cold water, or roll



themselves in snow. This, according to Tooke, they do, not only with impunity, but with advantage.

Albert de Mandesloes, in his "Travels in the East Indies," says that the Japanese never bind their children's loins, but strengthen them by plunging them, when warm, into very cold water.

Olearius tells us that the Muscovites, both male and female, come out of their hot stoves, reeking with perspiration, and immerse themselves in cold water; whilst in winter they loll themselves, thus heated, in beds of snow. In Livonia, he says, the Finlanders accustom themselves from childhood to these extremes of temperature, several times in succession, daily.

Tavernier mentions that the Armenians are in the habit, about Christmas, of plunging their children, whilst hot, into rivers; and that the King of Persia is often a witness of this ceremony near Ispahan.

Individual experiments, proving how easily excesses of heat and cold can be borne in succession, are numerous enough. In the "Transactions of the Royal Society," we believe, in the sixty-fifth volume, are some curious experiments in point, by Dr. Fordyce and Sir Charles Blagden. "During the whole day," says the latter, "we passed out of the heated room (the temperature of the air being from 240 deg. to 260 deg.), after every experiment, immediately into the cold air, without any precaution; after exposing our naked bodies to the heat, and sweating most violently, we instantly went into a cold room and staid there, even some minutes before we began to dress; yet no one received the least injury." In the same volume, Dr. Dobson, of Liverpool, records similar experiments that were attended with like consequences, and particularly mentions that Mr. Park was for some time in a stove heated to 202 deg., and yet went into the external air, in his usual clothing, during a hard frost, and was in no wise hurt by it. Dr. Currie, in his celebrated work, tells us that he learnt at Glasgow, in the spring of 1780, that it was common for the workmen in the glass manufactory, after enduring for some time the consuming heat of their furnaces, to plunge into the Clyde; a practice which they found in no respect injurious. Ourselves have curiously visited several glass-works, in prosecuting this subject, and have found men habitually in the practice of enduring a "crucible-heat" (where the molten glass is ready for disposal) such as no ordinary mortal could bear for many minutes, and yet running from time to time in the cold air, or plunging their hands and faces into cold water. Yet rarely do these men take cold, and "never," they say, from this seemingly hazardous practice. In particular, we know a man in one of these manufactories, who lives a sort of Cyclopaean life, by having to be the frequent attendant, or superintendent, of drying brimstone. The place in which this said material is desiccated has a temperature worthy of a salamander, yet, every half hour is the poor fellow in this oven for several minutes at a time, and thence back again into cold air—yet he rarely suffers for his exposure.

We could quote from personal experience and from research, many parallel proofs of the ease, or the advantage with which vicissitudes of temperature may be endured. We think, however, that we have furnished enough to convince our readers that there is nothing at all extraordinary in the matter, and that the marvellous statements of the hydropathists are merely echos of old truths, gathered from history, and confirmed by every-day experience. The practice of going "hissing hot," like *Falstaff*, into cold water, is surely no novelty. The Roman youths, we know, were accustomed to exercise themselves on the Campus Martius, before plunging into the Tiber; they were consequently immersed whilst in a fever heat, and during excessive perspiration; yet they affirmed, that the practice was beneficial and conducive to health, and especially to tranquil sleep. Any one found afraid of the risk was even jeered upon it. Horace, after asking Lydia why her lover neglects his exercises on the Campus Martius, pertinently inquires—

"Cur timet flavum Tiberim tangere?"

In our own day, the safety, or rather the desirableness, of taking a cold bath with the body heated instead of chilled, is as familiar as a household phrase. There is not a bathing-machine woman between John-o'-Groats' House and the Land's-end, but is ready to tell you, that to jump into the sea, cold, is to be starved for your trouble; whilst, as they quaintly express it, to go in hot, is "to take the chill off the water." Before Preissnitz was in embryo, or his ancestors for generations before him, this part of his marvellousness was a common fact that everybody acknowledged and knew the truth of. Strange enough, however, this oft-told tale has only to be repeated with a different emphasis and a due pomposity, and forthwith there are dupes enough to be startled by its seeming newness. Wonderful, say the quacks, and wonderful, say their gulls, that a man can be put into a hot bath, and then put into a cold one, without suffering death for his diversion! How pleasantly credulous the public is, to be sure!

"Nam qui nimios poscebat honores  
Et nimias poscebat opes, numerosa parabat  
Excelsæ turris tabulata, unde altior esset  
Casus et impulsæ præceps iniquæ ruinæ."—JUVENAL.

AMONG a small class of small people there is kept up, and very starchedly, a bastard kind of genteel morality, amusingly worth a quiet study. It forms a property that keeps their small souls quits with a very adverse fortune. Less substantial than the rent-paying pig of the poor Irish cotter, it is nursed with equal affection, and stands in as near a relation to the good people's happiness. Fed by the garbage of daily falsehoods, it keeps over their heads the roof of a little social consequence, and makes them by so much better off in the world of personal importance. We, who good-humouredly smile over such domestic manufactures of sham respectability, have no just idea of its earnest consequence to the small gentry themselves. There is a solemnity in their vindication of inimportance, which shows that they go

about it with all the deliberation of a system. Like a school-girl reciting a tragic passage, their whole being is centred in the momentous performance. They have seized somehow a wrong-headed *beau idéal* of dignified bearing, and will, *per fas et nefas*, realize it with fidelity. Alas! success—so inadequate to their aims—gives us at best but the New Zealander attempting, with fish-bone tools, Parisian jewellery! Good natural materials there may be, yet we have neither ornamental gold nor a good Mosaic imitation; the aimed-at show is as little present as the neglected reality. Not more astray is the footman in undress talking "the gentleman" in words of learned length and ponderous sound—length and sound both wrong. Worse even than silence is the ambitious affectation in revealing that intrinsic vulgarity which, in the words of Hazlitt, is thus striving to run away from itself!

With regret we see and say it: our registration of this unfortunate class would not be complete if we omitted to inscribe in our list—of course with due classification of grades—the names of the learned writers who bear the heavy pressure of the scientific management of the Provincial Association, and who have recently favoured us with their very respectable "opinions and ruminations." Although *disaliter visum est*, we could have well wished that our brother pressmen, having an honest toil before them, had contented themselves with getting through the castigation they had to inflict on us in the plain, straightforward way that became their office, without troubling themselves or overwhelming us with needless assurances of their superior breeding, education, and literary attainments! Dissertations on self-consequence by editorial gentlemen may be pleasing, but are not relevant recreations. A frank, unminced truth is worth a bushel-full of them: It is, doubtless, *genteel* to escape covertly a responsibility assumed practically—and there is some ingenuity in making "respectability" a cloak for malice, and virtue the best disguise for wounded pride—but *we* don't like the system. If there be malice, or if there be vulgarity, the least repulsive form they can assume is their own; the one hiding its sting under an affectation of moderation; and the other—disguising its nature under an extravagance of squeamishness—excite a doubled feeling of hostility, in which, to our hate of vice, is superadded our disgust at meanness. The double hypocrite, whose pharisaical homage to gentility and virtue involves an everlasting impeachment of the genuine article in other people—who conditionally hints a calumny he dare not word, and circuitously conjectures up a claim for personal superiority he cannot substantiate—may win a momentary triumph in the small intrigues of contemptible coteries, but will find himself at a considerable disadvantage whenever compelled, as now, to encounter honest opponents on a public stage.

Our readers need not be told that we have recently yielded our columns to a clever, unsparing, but just investigation into the policy and proceedings of the Provincial Medical and Surgical Association. The *subject* was surely a



legitimate matter of public debate; if it be not, medical journalism ought to be extinguished by act of Parliament. Not a line that we have admitted on that public question can be quoted to show that the limit of fair, gentlemanly discussion has been overstepped in a single instance. We are thus enabled to take high ground. We first defy objection to the inquiry; we secondly defy proof, that in a single instance it has been misconducted. We repeat most emphatically, that the *question* itself is not more *public* than the *manner* of its discussion. A public Association has been adjudged and condemned solely on *public considerations*. We say further, that some of the chiefs of the Association owe us gratitude for the personal forbearance they have been indulged with. It is a forbearance by no means made necessary by the *canons* of polemical warfare, or the *rules* of gentlemanly propriety. They were spared, though open to just accusation, because the public object we had in view did not require their immolation. Well, the gentlemen thus spared, and thus answerable for the public mismanagement, we have thus publicly laid bare, have been compelled into a defence. Let us mark how they have set about it. According to their *own* authority, they are (as the *élite* and rulers and writers, and *legislators* of the Association) "gentlemen of considerable attainments, of standing in their profession, and of high moral character." They have for "one object"—or rather, that we may write good English, they have for objects of their public solicitude—"the maintenance of professional honour and respectability, and the promotion of professional good feeling." In addition to all these excellencies, autographically claimed, they have another: a vast "distaste of vituperation and abuse," and of "attacks directed against individuals"! In what way, then, do these *moral, temperate, intellectual, and gentlemanly* persons meet the *public* investigation we have pressed on them? Let them speak for themselves. Here is the opening of their reply. We entreat those of our readers who, like ourselves, do not go out of their way to make people believe that they are moral, temperate, intellectual, and gentlemanly, to mark the truthful, unabusive, and unvituperative manner of their response.

"A London medical journal (1), FINDING, probably, that its attacks on one of its contemporaries have failed in their object, and (2) that its own interests have been by no means advanced by the attempt to damage those of a metropolitan rival (3), is now engaged in the endeavour to divert some of the resources of the Provincial Association from their proper object (4)—the promotion of the interests of provincial practitioners (5). We cannot indulge our contemporary by entering into the lists with him (6). We are not skilled in the use of the *coarse* weapons which he so unsparingly employs; and, if we were, vituperation and abuse would be even more distasteful to the members of the Provincial Association in the columns of their own journal than they are in those of the *Medical Times*. The members of the Association are, as a *body*, gentlemen of considerable attainments, of standing in their profession, and of high moral character. One of the objects of the Association is to maintain the honour and respectability of all its members, and to promote good feeling among them (7). Attacks directed against individuals are little likely to accomplish that object, while (8) the unprovoked outrage offered to the Association, and

through the Association to provincial practitioners in general, cannot but fail, and must overwhelm its authors with confusion and defeat."

We have interposed the numerals to express the number of actual misstatements these "gentlemen of considerable attainments, of standing in their profession, and high moral character," have crowded into this short exordium of their reply. And first as to the facts:—

1. We have *not found* that our attacks on "a contemporary" have failed in their object. We have aimed at no object yet which we have not attained: a lesson to be learned by others as well as by "a contemporary." The affirmation, indeed, that we have "*found*" a failure is contrary to many well-known facts, is as gratuitous as it is unfounded, and just shows that the gentlemen of "high moral character" possess very "considerable attainments" in hazarding any "abusive," "vituperative," and "personal" statements that may suit the purpose of the moment. To be sure, the word "probably" is introduced: "high moral character" only makes designed misstatements "probably." There is a virtue about the "probably" which clothes a falsehood with so fine an air of moderation and fairness!

2. Whether we have attempted to damage the character or circulation of a contemporary, or whether "a contemporary" has attempted the easy task itself, we will not say; but it is perfectly certain, that the *Medical Times*, from a comparatively contemptible origin, enjoys at this moment the largest circulation of any medical journal in the world. The mutations of shape, size, and price of "a contemporary," and its utter loss of influence on every subject of professional interest, indicate that *we*, at least, have by "no means" been injured by the competition we have created. So much for misstatement No. 2—a misstatement, again, as gratuitous as unfounded.

3 and 4. We are not engaged in an endeavour to divert any resources from the promotion of the *interests* of provincial practitioners, nor is such promotion, at this moment, the "*proper* object" of the Provincial Association, as managed by its Council of Physicians and Surgical Fellows. Under this short heading, then, we have two misstatements from these gentlemen of "considerable attainments and high moral character,"—both, again, as gratuitous as unfounded.

5. These gentlemen do "indulge us by entering the lists with us." The habit of misstatement would appear so inveterate, that before doing the simplest thing—and this is very simple—they must affirm that they will *not* do it!

6. We do *not* employ coarse weapons unsparingly; and these "gentlemen," if they do not use them "*skilfully*," at all events *do* use them unsparingly. We know on their side no coarser weapons than rash and convenient misstatements used at will (eight of them in almost as many lines); and we recognise, moreover, no more justifiable instruments of accusation than fair and manly arguments on public acts and public documents.

7. Our attacks are *not* directed against persons but *policies*. Much as we have impugned

the management of the Association, we have said not one word against the private or professional worth of even the most active member of the Council.

Eightly, and finally. We have *not* offered an unprovoked outrage to the Association, and through it to provincial practitioners in general. We have proved by facts, documents, and the conclusions they warrant, that it was not we, but the *few* managers of the Council, who have offered an unprovoked outrage on the Association, and through it on all practitioners, metropolitan as well provincial. We are slandered with the very misdeeds we condemn.

It is one amusing fact, amid these droll accusations, that they assume conflicting and contradictory shapes: so that while *all* may be, and indeed are, false, *some* of them are self-evidently so. Thus, though the tenor and character of our investigation is wholly public and on public grounds, and though there be abundance of materials to evidence that there is sufficient public cause for the strictures we have enunciated, yet these "moral," "intellectual," and "gentlemanly" writers must perforce attribute to us a sufficient variety of malicious, mean, and mercenary motives for our policy. On one side we are told that our "*outrage* must overwhelm us with confusion and defeat" (!), and that our "*outrage*" cannot but "*fail*"—terms which, in better English (these "gentlemen of considerable attainments" will pardon the correction), mean, that our attempt to bring the Council to book will prove a failure, and overwhelm us with defeat—*id est*, failure. On another side we are told, by the same class of gentlemen, that in thus ruining ourselves we have nothing better than a mercantile aim; that we hope to cause a stir, injure a contemporary, to "*divert* the resources of the Association"—in *our* own direction, we may suppose; and finally, there is the exquisite *non-sequitur* explanation of motives—that, seeing the uselessness of our attentions to a metropolitan contemporary, we have, as a matter of course, set about reforming a Provincial Association! And this is the sort of writing indulged in by anti-vituperation "gentlemen of considerable attainments, of standing and of high moral character," in answer to detailed accusations supported by elaborate proofs that they have frittered away great professional powers and agencies to serve the purposes and policies of a small and dangerous grade! What must be their opinion of the intelligence and spirit of their injured members, before whom they can thus comport themselves!

The *inuendo*, very oblique, is a stage trick which a scandalous spinster or censorious dowager is allowed, in their excessive puritanism, to display in our comedies, much to the amusement of the public. Let us hear the Provincial Mrs. Candour upholding her own purity, and scolding the naughty *Medical Times*:—

"These are general principles, and are not palatable *perhaps* to those who would legislate for class interests; they may not suit, possibly, certain individuals with very questionable qualifications for deciding on matters which concern the interests of the medical profession, but they are those which will be generally recognised by provincial practitioners as tending to cement the different orders



of the profession amongst themselves into one harmonious whole."

This is the way that the managers of the *Provincial Association* "maintain honour and respectability"; "promote good feelings"; prove themselves "unskilled in the use of coarse weapons"; possessed of high "moral character," &c.!

Why, what is it all, but the "School for Scandal" (in worse English, "perhaps"), enacted in newspaper columns, the services of *Mrs. Malaprop* being specially engaged for the occasion? How charming the idea of the *especial* palate of *Provincial Practitioners* being *particularly* appealed to on the *general* principles which are to cement *all, Metropolitan* as well as *Provincial*, into a "*whole*"! And then the happy figures of speech, "tending to cement the different orders amongst themselves into one harmonious whole"! We think we see before us the orders, Doric, Corinthian, Ionic, and Composite, undergoing, with sad visages, the process of being editorially plastered into one harmonious whole! "Considerable attainments" truly! We should say "very considerable"!

But we will not try these gentlemen on matters which merely bring their "considerable attainments" under question: we will just quote them now, to see how they behave on a matter which involves, between manly opponents, the commonest fair play and honesty. Our readers remember that our correspondent, reviewing the official statement of the Association, remarked on the singular fact, that the Council gave arguments for "protection" against quackery; but carefully, in their summary and enumeration, abstained from including it among the leading principles of the Association. Quoting the arguments in the statement, our correspondent distinctly says:—

"The necessity of framing some stringent laws that might be enforced against the unprincipled quack could be scarcely better expressed."

And his complaint at the subsequent omission is thus worded:—

"After telling him *inferentially*, that protection must be law, they entirely suppress the principle in their final declaration, and by which alone they are bound, as an enunciation of their principles of action."

Now, mark how the gentlemen gifted with the many high, moral, and intellectual qualities, described so carefully in their own inventory, have treated this accusation. Here is *their* version of the charge, and their conclusive reply:—

"In the multitude of false and ill-founded accusations brought against the Association, we had nearly forgotten to notice that it is accused of being *opposed* to protection. Now, so far is this from the fact, that the support which the Association has always given to protection for the qualified medical practitioner, is the very ground on which a distinguished member felt himself called upon, some time since, to decline an honourable office to which he had been appointed."

Out of "a multitude of false," and apparently worse than that, actually "*unfounded*, accusations," they can only quote one—and that one they quote dishonestly! What is our answer? This. The charge, as they know, was not of being "opposed to protection," but of dealing with protection in duplicity. The complaint was, that while verbally talking for it,

they practically suppressed it as a principle of the Association. And we are entitled to ask whether the fact, that the distinguished member cited, who "declined an honourable office," remained still on the Council, is not proof that the duplicity was at least half successful?

With one concluding extract we will close for the present our notice of the literary elegancies to which our scrutiny of what now turns out to be nothing better than an "organized conspiracy" and wilful imposture has subjected us.

"Now, while the ruling powers of the metropolitan corporations, whether of the Colleges of Physicians and Surgeons, or the Society of Apothecaries, are each contending for the so-called rights of their own members, it is futile to expect that a measure of reform satisfactory to the whole profession can be carried out. Under these circumstances the Provincial Association is willing to accept the instalment of a registration of all duly-qualified medical practitioners, as affording at least a distinctive mark between the educated medical practitioner and the uneducated and ignorant quack. But then this measure has been advocated—has been introduced into Parliament in its separate form—by one whom it pleases a certain portion of the medical press to regard as a mortal foe—*hinc illæ lacrymæ*—and instead of looking to the measure itself, the sense of injuries sustained, real or imaginary, is suffered to rankle, *alta mente repostum*, and the public good is in consequence sacrificed to private feelings."

If it were not a fact, that every medical practitioner looks on the proposed registration measure as the worst possible establishment of the worst possible *status quo*—if it were not notorious that on all sides, as well as on our own, demonstrations have appeared, showing that the existing profession, with the exception of a very few surgical "fellows," and a still smaller clique of intriguing emigrant physicians, could receive no severer or more fatal injury than the bill's enactment into law—we might overlook as pardonable this small-minded, unhand-some attribution to a public journal of motives so miserably frivolous and personal. As the case stands, there is no excuse for it, save the fatality which makes petty criminality always suspicious of its neighbours. The bill is, if possible, worse than the hands it lies in. While the only advantage its condemned fautors can claim for it is, that it "affords at least a distinctive mark between the educated medical practitioner and the *uneducated* and"—*mirabile dictu*!—"ignorant quack"—and one would fancy that Drs. Hastings and Streeten needed no such distinctive marks—those who stand opposed to it see in it practical injuries to the social *status* of the existing, and the high educational attainments of the future, profession, which would require generations to repair.

But mark the admission of the Council, intrusted with so large an amount of professional money, advanced through the sixth part of a century on the faith of its promises of "legislative ameliorations." "It is futile to expect that a measure of reform satisfactory to the whole profession can be carried out"! And hence they pledge themselves to give all their money and influence to support a measure most unsatisfactory to every member of the profession not in an exceptional position! "It is futile to expect a satisfactory

measure." Never was a great truth uttered with more touching simplicity! How many years, how many thousands of pounds, how many successions of raised and depressed hopes, has it cost the profession to have the truth thus experimentally discovered—and communicated to them by the "learned," "gentlemanly," and "moral" men, those Solons who have ruled at Worcester, with no deeper policy for their support than that of dividing medical men in the provinces and in the metropolis—brethren with precisely the same interests and wishes—and thus securing that the chance of improvement should be ever "futile," and the lease of Council office and semi-agitation perennial!

## MEDICAL REFORM.

### LETTERS

TO THE MEMBERS OF

THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

BY A GENERAL PRACTITIONER.

[We are reluctantly compelled to postpone Letter VI. of our very able correspondent "Vox Veritatis" till the next number; the concluding part, however, possessing a temporary interest which might be injured by the delay, we have taken the liberty of detaching it, and submitting it to our readers at once.]

Before I conclude this letter I feel it necessary to give a passing notice to the communication of E. S., of Worcester, which appeared last week in the columns of the *Medical Times*. In reproving me the writer has exposed himself to severer censure, but I will not reproach him. His objurgations recoil upon himself. He is a clever young man, partaking, however, somewhat largely of the hasty indiscretion too often the accompaniment of youth. The didactic style does not become beardless juvenescence. It would have been more decent in so young a man to have refuted my arguments and rebutted my allegations; as he has not attempted this, I presume that they are incontrovertible. His father is a *Fellow* of the College of Surgeons, and, I believe, a *Councillor* of the Provincial Association. You perceive, gentlemen, that I know him; even a mask cannot conceal him from my scrutinizing eye. Because I know him, however, and because I hope he may live long enough to distrust the impulsive credulity of youth, and to temper the imprudent impetuosity of his nature, I shall withhold the scourge. I cannot, too, find it in my heart to reprove a man who has evidently come forward to cover a cause in which his parent is an offender. His filial tenderness has consecrated his folly; let him go in peace.

I must, however, say a word or two on my own account. He has charged me with writing in disguise, and would, doubtless, be much gratified if he could ascertain my name. When I read this silly allegation I remembered a very apt Arabic fable, which will supply my answer. A noble horse once strayed into the wilds of the forest, and suddenly found himself in the neighbourhood of a pack of wolves. These ravenous animals, wishing to pick a quarrel with him, that they might have an excuse for making him their prey, sent one of their number to insult him. The wolf, charged with his message, advanced towards the horse, and, accosting him, said—"Ah, fellow,



what are you doing here? where do you come from? what is your name?" "My name," replied the horse, "is written on my heel, if you stoop down you can read it." The witless wolf did so, and, while he was stooping, the horse raised his hoof and knocked out his brains for his impertinence. Now, E. S. can read my name on my heel; and I have no doubt that I may be known by the kicks I give. Let him not foolishly attack me, for, although I *do* not, yet let him know that I *can* recalcitrate.

I am also charged with rough language. I wish that guilt could be effectually reprov'd with courtesy: my task would be far easier. But, while guilt is guilt, falsehood falsehood, and hypocrisy hypocrisy, I shall feel myself obliged to call them by their right names. I wish to write intelligibly, in the unpolished strength of my "land's language"; and, unless I find that the phraseology of compliment will answer my purpose better, I shall continue to stigmatise, in a plain and fearless manner, every deviation from rectitude which may appear in the conduct of the Council of the Provincial Association.

I make no personal attacks; I have, up to this time, forbore to cite the expressions and opinions of the leading members of the Council, because I have desired that the systematic hypocrisy of the principles and constitution of the Association should alone feel the weight of my assault. The high argument of public principle has hitherto been mine. Whatever, for example, I may think of Drs. Hastings and Streeten, I have not yet divulged it. The one may be an intellectual man, and the other an honest one; if they be so, the public are not one whit wiser on these points from my declaration. I have kept my secret inviolate. A bare certificate of character is alone an aspersion on the reputation of some men; even truth in such cases is a libel.

## MISCELLANEOUS CORRESPONDENCE.

### THE PROVINCIAL ASSOCIATION.

[To the Editor of the Medical Times.]

SIR,—The "vulgar effusion" of the undersigned "insignificancy" is a proof, I see, to the Provincial Council, that the profession wants not only "reforming" but "cleansing." I am glad that my vulgar effusion (all *true* effusions are *very* vulgar) has been so mightily successful! The aforesaid demonstration was exactly my aim. The sheepfold is monstrously in want of a clearance, beyond a doubt of it. The little question between us is—whether it shall be the "sheep" or the "wolves" that suffer the clearance. They say the "sheep." The "insignificancies"! What will say the insignificancies? They have been very confiding hitherto—but I have no doubt their folly will not go quite so far as to join in that cry.

"The sooner such vulgarians withdraw themselves from the Association, the sooner will a *necessary* cleansing be commenced"! This is the sort of way in which is met by the Association he supports, a member of the College who speaks out his indignation at the injustice with which he has been treated! This is the way a Council, who derive all their funds from general practitioners, meet their just plaints! "Vulgarian withdraw!" Very good! very civil! very gentlemanly! very. Not the least touch of a vulgarian about it could be discovered, even through a microscope.

"No respectable man shall legislate for me," says this "Unus Quorum." "Unus Quorum" said no such thing, and the writer knew he did not. I, "Unus Quorum," said that "no respectable man, who is a fellow or a physician, should have my fortunes at his disposal." There is a huge difference! Now, Sir, though I am a vulgarian—com-

plaining of injustice, like a man, when I am compelled by oppression on one side, and treachery on the other to do so—I am not a man who would pick a pocket, or deliberately do its equivalent—misquote a writer.

One word more. The letter dated generally "Suffolk," and professedly from a general practitioner, is not genuine; it was manufactured at Worcester. The "infinite disgust" was felt there, and nowhere else. So much for these gentlemen who "pray God" that members who have suffered, like myself, from outrage and betrayal, will follow my example in quitting the Association!

#### UNUS QUORUM.

\* \* The following is the letter complained of by our correspondent:—

"If any proof were wanting to demonstrate how much our profession requires, not reforming only, but 'cleansing,' the silly letters of 'Vox Veritatis' ('Vox Stultitiae' would have been an apter title), and the more vulgar effusions of the insignificancies who must needs try to ape so goodly an example, are in my humble opinion evidence enough. It would be difficult, Mr. Editor, to give you any just appreciation of the infinite disgust with which I read those letters; an old member of the Association, on which so much harmless venom is expended, and a general practitioner to boot, I protest against the justice of the aspersions of 'Vox Veritatis.' The Association may not be all that could be wished, but what institution is not open to the same accusation? There may be some error in its management, some deficiency in its mechanism; but I do not hesitate to say, that, spite of this, it is the most important Medical Association in the kingdom. The object of 'Vox,' *et preterea nihil*, we may add, appears to be to excite the general practitioner into a feeling that he is snubbed, imposed upon, and pigeoned, by 'physicians and fellows.' Now, Sir, I am a general practitioner, as I said before, and no 'fellow' either; but I can meet those 'bugbears,' which seem to haunt poor 'Vox,' namely, the aforesaid physicians and fellows, without any feeling of degradation. I am treated as a man of science and a gentleman by them, and so I venture to say is every general practitioner who deserves it. It is such people as 'Vox' and his satellites appear from their writings to be, that would certainly be out of place in the society of such gentlemen as I met at Norwich, in August, three-fourths of whom were general practitioners; and the sooner such vulgarians withdraw themselves from the Association, the sooner will a necessary 'cleansing' be commenced. One dirty fellow actually boasts of repudiating his debt of a guinea to the Association. God grant, if there be any more such in the Association, they may speedily follow his example of leaving it. 'No respectable man shall legislate for me,' says this 'Unus Quorum.' I can imagine that he must feel very ill at ease when any respectable man comes into contact with him."

#### MEDICAL ETIQUETTE.

[To the Editor of the Medical Times.]

SIR,—Six weeks ago, namely, on Saturday, October 10, Mr. George Wigan, of No. 42, Somerset-street, Portman-square, surgeon, addressed to a contemporary journal a little history, containing sundry direct charges against me. He further insinuates, that I have attempted to lay prostrate his professional character, that I may raise my own reputation on its ruin. The transaction which led to the use of these hard words has been described but imperfectly, and therefore I crave permission to lay before your readers a version of the story, less embellished than that of Mr. George Wigan, but not less worthy of attention. Mr. Wigan has expressly assured me, that his object throughout has been to do a service to the profession. He cannot, therefore, but feel gratified by the wider influence which your pages will give to his benevolent efforts.

On Wednesday evening, Sept. 9, at six P.M., I was summoned to attend, without delay, Mrs. Fisher, of No. 5, James-street, Manchester-square. The summons was obeyed. Previous to any examination of the patient I had a long and perfectly con-

fidential conversation with the husband, touching the circumstances which induced him to seek my advice. After some deliberation I saw the patient, gave my opinion, wrote a very harmless prescription, and took my leave. Soon after seven o'clock, being then at dinner with my friend Mr. Craddock, of Chapel-place, Cavendish-square, I was summoned to speak to two gentlemen. One was announced to me as Mr. George Wigan, the other as his friend. They called to complain of unprofessional conduct, on my part, in visiting Mrs. Fisher without sending for Mr. Wigan. The circumstances were delicate, and I felt in no way called upon to explain in presence of a third party. I may, perhaps, on this occasion, have exhibited some portion of what Mr. Wigan, in a private letter to me, calls *nonchalance*; I dare say I did. I am thankful I did no more. I simply referred the gentlemen to Mr. Fisher, and begged them to retire.

The haunch of venison, admirably carved (as it always is) by Mr. Craddock, sent up its savoury odour into the drawing-room, and had, at that time, more attraction for me than the discussion of a point of medical etiquette, in presence of one of whose name and calling I was ignorant. The several questions occurred to me, Who is this friend? Is he of the legal, medical, or *military* profession? For what object is he here? How have I offended him? Why am not I indulged with the privilege of a friend as well as Mr. Wigan?

While thus musing, visions of a character the reverse of pacific came across me, and I thought it wise to recommend a breaking up of the conference. Descending the staircase, close to the door of the dining-room, a scene then ensued which I shall not trust myself to describe. The servants of Mr. Craddock, the party of medical friends assembled at his hospitable board, or the more graphic pen of Mr. George Wigan could alone do it justice!

The next morning, at ten A.M., I called on Mr. Fisher, not (please to observe) to see the patient (of that I am not accused), but simply to inform him of the *grand scena* of the preceding evening. On this occasion, also, I had a *strictly confidential* conversation with him.

Time rolled on. The moon completed one entire revolution round the earth, when Mr. Wigan suddenly gave vent to his feelings, and "did a service to the profession" by his celebrated letter. Why Mr. Wigan bottled up his indignation for thirty long days and nights, and why the profession, for the same period of time, was deprived of the benefit of his narrative, are points which remain as yet unexplained. Time will, doubtless, develop this mystery among others.

Mr. Wigan, I have said, explained to me his views in a private letter. Under date Oct. 15, he writes to me thus—"My object (in publication) was not to do you a personal injury, but to do a service to the profession." The means by which Mr. Wigan carried out this design appear to me, to say the least, very singular. We are informed by himself that Mrs. Fisher's complaint was *acute rheumatism*. Yet this disease, if Mr. Wigan's words be taken literally (and he says it is all *literally* true), he considers as nothing—as a *ridiculus mus*. His words are—"I conjured up a mountain in labour, and treated a *ridiculus mus*." He cannot surely mean that acute rheumatism, even though all *severe* symptoms had subsided, has anything ridiculous about it. I never heard it called or treated as a joke. He must, therefore, mean that the prescription which I wrote, and with which he seems much offended, was ridiculous. In this sense I have commented on the passage elsewhere. But, surely, such expressions, or such views of acute disease, are scarcely calculated to *benefit the profession*.

Then, again, Mr. Wigan translates my prescription, instead of giving the original Latin. Does Mr. Wigan seriously mean to say, that he does this as a *service* to the profession? Cannot the profession construe my prescription? I would respectfully inquire whether the translation was not rather made for the benefit of those *not* in the profession? This will be matter for future inquiry, in the prosecution of which it will certainly be interesting to know, what this ridiculous prescription of mine—or, if you prefer it, this prescription for a ridi-



culous acute rheumatism—was intended to supersede, and by what other prescription it was itself superseded. Happily, Mr. Wigan's books can be referred to, to clear up this very curious point of the case.

Mr. Wigan's explanation of the reason of my being called in has something about it very mysterious. His words are—"In consequence of reluctance to speak, or to be spoken to, the husband, from undue apprehension and the importunities of friends, was induced to call in Dr. Gregory." I presume that the reluctance to speak or be spoken to was on the part of the patient, not of the husband; but this sentence is not a model for the profession to adopt. Mr. Wigan adds, that I was called in "on the spur of the moment." Is Mr. Wigan sure of that? Had the question of calling in a physician not been agitated on the preceding day? All this will, I hope, soon be cleared up, and made as intelligible to ordinary capacities as Mr. Wigan has kindly made my prescription.

In a second communication to the same journal which contained the first, Mr. Wigan declares, that his original statement is *literally* true, and adds, that Mr. Eyre, a gentleman of high character, would corroborate *every word* that it (the original statement) contained. This passage fairly startled me. How Mr. Eyre could corroborate the fact, that I was called in on the spur of the moment, and not after reflection—how he could vouch for the fact that I proceeded *at once* to question the patient—or how he could know that I questioned the patient at all, who was so reluctant to speak or be spoken to, seeing that he was not in the room, and I believe not in the house, or even in the street, at the time, does certainly pass my weak understanding. This part of the subject obviously demands further inquiry. In fact, the whole case requires the closest investigation.

I have done, Sir, for the present. It is, I assure you, very painful to me, very contrary to my nature, to be thus compelled, in self-defence, to comment on the statements of a brother practitioner. I have written kindly to Mr. Wigan. I have represented to him that he has been deceived. If Mr. Wigan had written a few lines to me, complaining of *apparent* inattention on my part—if he had come to me, even in the middle of a venison feast, unaccompanied by a *friend*, and asked for a few words of explanation—I would soon have convinced him, that I was not the *monstrum horrendum informe ingens* which he has represented me to be. I have already told him, in language meant to be kind, that I may yet turn out a very unoffending person—perhaps more sinned against than sinning.

I bear Mr. Wigan no grudge, no ill will, no enmity. I should not know him if I were to meet him in the street. Why he has fastened this quarrel upon me I know not. Surely he would do better another time to think more charitably of his neighbours—at any rate, to make some inquiries during the thirty days of his literary incubation. Surely, too, medical ethics, though perhaps neglected, do not demand that a "FRIEND" should interpose, where no hostile feelings are, or ever were, entertained.

I am Sir, your obedient servant,  
GEORGE GREGORY.

31, Weymouth-street, Nov. 24.

## THE PUBLIC VERSUS THE DOCTORS.

[To the Editor of the Medical Times.]

SIR,—The tone of your last number indicates a change in the current of medical politics. You confess that you are almost converted to the notion that the divorce of medicine and surgery from pharmaceutical practice is not desirable—an opinion much at variance with your former professions.

Still you seem to deal with the question tremulously, "as half afraid of being wrong," and put several questions to be answered by those who think differently.

This being the case, I hope you will not decline to insert the following remarks, which are intended to meet some of the arguments you have started.

You give a challenge and I accept it, and depend upon your wonted candour and fair dealing for a public hearing.

"There are," as you truly state, "two questions to be looked to: first, the due and effective attendance of the public; and, second, a fair attention to the interests of the profession as it stands. If the *genteel* and disinterested railers at pharmaceutical practice will only show that their innovation (query, *whose* innovation?) is not inconsistent with these two great aims, we will abandon the field to them. They have not done this; can they?"

Now, it is clear that, before one can be called upon fairly to show that a certain system is compatible or not with two preliminary conditions, it is necessary to ascertain that these two conditions are compatible with each other; for, unless this is the case, it will be impossible to proceed, and I maintain that a "due and effective attendance of the public" is utterly irreconcilable with "the interests of the profession as it now is." The two interests are in open hostility to each other; and woe betide the unlucky statesman who shall sit down to concoct a scheme for the reform of the medical profession, and imagine that he can frame any measure which shall give satisfaction to both these parties. One or other must be sacrificed, and I confess that I have that confidence in the good sense of the public, and in the independence of a reformed House of Commons, which makes me feel sure that no bill which will have the effect of perpetuating so mischievous a monopoly as the medico-drug trade will be suffered to pass into a law. No, the so-called general practitioners may writhe and struggle as they please, but this can never be. A corporation of drug-doctors (even if they should reach this desired elevation) will not be permitted in these days to carry on the brisk protection-trade in disease which they hitherto have done. If the Minister must choose between the public and the profession as it now stands, it is pretty certain which side the decision must take.

It is an unlucky time to talk of reconciling the interests of the public and the existing profession, when every day brings some new evidence that the public have lost all confidence, both in medical skill and medical honesty. It is irrational and absurd to suppose that the various opponent systems which have lately gained so much of the support, not only of the ignorant but of the most highly-cultivated portions of society, could have successfully maintained their ground, but for the ignorant, self-conceited, and contemptuous treatment they have received from a drug-selling body, such as the medical profession now is. Such a profession dared not, could not afford, to allow the due merit to such portions of truth as these systems contain, and the public, seeing through the cheat, have sided, and are siding more and more daily, with the heretics, and crowning their brows with the honours, while they fill their pockets with the rewards, of martyrdom. You tell us, that the abandonment of drug-selling "would destroy two-thirds of the legitimate practice of the kingdom"; but you have yet to show, and you will find it difficult to gain credit for your statements, that this result would not be highly beneficial to the community at large, and a sounder measure of medical reform than has as yet been contemplated by the most sanguine optimists.

Having now expressed my firm and not hastily-conceived opinion as to the utter futility of any attempt to bolster up a compromise between the welfare of the public and that of the profession as it now stands, I ought to state, that I do not believe it at all impossible to form an idea of a state of medical organization quite compatible with the highest interests of humanity in general, and the just dignity of a learned profession; and it is absolutely necessary for the very notion, and forms part of the condition of reform, to presuppose some standard, real or imaginary, the which we should aim at attaining, in greater or less degree, according to the actual means at command and the existing nature of the case. But, before I enter

upon this part of my subject, I must briefly touch upon some few of your remarks which appear to require notice.

I cannot conceive upon what data you base your conclusion, that the poorer classes especially either are, or will be, under a temptation to seek the succour of empirics for the want of access to cheap and ready attendance from qualified practitioners. Certain I am, from daily experience, that the sight of a private door is no barrier to their application whenever their necessities require it, and equally certain I am that empirics generally are not celebrated for cheapness. Whatever may be the cause of the increasing complaint, that medical men are not sufficiently remunerated for their services, it cannot be said that the quacks undersell them. They are quite innocent of this charge. They know their own interest better, and, I am sorry to say, exhibit to the public eye, in this respect, a damning contrast to club-doctors at one halfpenny per head, and physicians bargaining for half-crown fees! You seem terribly afraid of the medical profession becoming too *genteel*; but let me tell you it will be time enough to provide for this danger when it begins to show symptoms of being simply *respectable*.

But to return. I freely own I have no patience with the cant and nonsense that are talked about the medical attendance of the poor. I do not mean merely the paupers, for whom it is the business of the State to provide, if public charities are insufficient, but for the needy though industrious classes. The general practitioners would fain make people believe that, but for them, these poor yet rightly independent people would be quite neglected, their modesty preventing them from applying to any but open shops. Nothing can be more untrue than this assertion, and, if the case were found to be so, surely, in these days of joint co-operation and mutual benefit, some system might easily be devised to meet the difficulty, without making a sacrifice of all that is visibly respectable in the practice of medicine. Have Mr. Ceely's labours, in reference to this question, been entirely thrown away?

The sentimental tone lately adopted by the advocates of the open-surgery system, with regard to the poor, always forcibly reminds me of a notable instance of one who made use of similar language in olden time:—"Not that he cared for the poor, but because he was a thief, and had the bag, and bare what was put therein." In order that they may continue to drive a flourishing trade in pills and potions, to the great detriment of their patients' stomachs, the general practitioners are endeavouring to get up a cry about the poor—a subject on which John Bull is ever too ready to listen to any designing nostrum-monger, that may succeed for the moment in acting upon his sympathies, rather than entertain the most laboriously digested plans of comprehensive and enlightened philanthropy.

I entirely agree with all you say about the absurdity of that pseudo-gentility attaching to the notion of a mere "pure," and the fungoid nature of those excrescences miscalled "specialties," which have sprung up in our profession "as it now is," with no permanent vital principle to uphold them, instead of being produced according to the laws of legitimate development, from a more general amalgamation of functions; but I cannot subscribe to your assertion, that open shopkeeping does not tend to lower professional character; You ask "why, if a man have an honest calling, should he not exercise it honestly according as his own wants and the needs of his neighbourhood suggest?" And to this question I have no answer to give. I know no reason why he should not. The case, however, is widely different when the calling is not an honest one; and I insist that the selling of drugs at a fictitious profit, by the party who himself has the control of the quantity ordered, is *not* an honest calling. If, in this case or that, it is pursued as honestly, or rather as honourably, as circumstances permit, such cases, however numerous, are accidental in their nature,



and furnish no argument whatever in favour of the general principle of the system. This species of double-handed monopoly is not to be found in any other trade or calling;—why should it be in medicine? It exists in no other civilized country;—why should it in England?

Happily for themselves, the public have begun to see this question in its true light. Experience has taught them that the cure of diseases does not always depend upon the swallowing of quantities of nauseous medicines. Nature is more bountiful in her resources, and the graceless and tardy admission of this fact on the part of the medical profession (witness the late numbers of "Forbes's Review") comes too late to avert the legitimate conclusion resulting from this discovery. People are quite willing to be mesmerized, or drenched with cold water, or made to swallow almost invisible globules of sugar of milk, or, what is the same thing, to adopt the *dolce far niente* system, and leave things to take their course; but crammed with physic they will not be. They will not long continue to endure the annual catalogue of draughts and mixtures which either they have swallowed to their own injury, or, as is more frequently the case, they have not swallowed at all—to the no less injury of their medical confidence. In this determination they are perfectly right; and if the medical profession fails to recognise this state of affairs, and, without reading the lesson before their eyes, will still endeavour (how uselessly time will show) to perpetuate an expiring nuisance, and seek to give it the sanction of a law, the said profession, as a body, must take the inevitable consequence and pay the price of its folly.

I have already exceeded all reasonable limits, and cannot, therefore, enter, as I proposed, into what I consider to be the true cause of the present unhappy state of medicine, and the means of remedying the evil; and, without a searching inquiry into the causes, all remedy is hopeless. But, if you think well to give insertion to the foregoing remarks, I will endeavour to follow them up by a somewhat detailed examination of the principles and objects of medical reform.

I am, Sir, with all respect,

Your obedient servant,

Oct. 28. CANRIDUS.

Our clever correspondent, who rightly proclaims himself of the "Mrs. Candour" school, puts our impartiality to a severe test.—ED.

#### A WARNING.

[To the Editor of the Medical Times.]

SIR,—Your pen, successful as powerful in its efforts for the improvement of your profession, and your never-tiring watchfulness, are invoked to correct one of the most flagrant abuses ever perpetrated against surgeons in London. A society is forming called "The National Friendly Society"; its avowed object is the insurance of the lives of the middle and lower classes for sums not exceeding £200. To this the society adds relief during sickness, and free medical attendance. Now, Sir, this is a penny club on a large scale, and, if successful, it will place *all the medical attendants of the people* at the mercy of the directors or originators of the scheme. What amount do you imagine this extensive society proposes to pay to medical men? Eight shillings and sixpence per annum! Generous society! Generous speculating lawyers who proposed it! For eight shillings and sixpence *per annum*, little more than the amount of one of their fees for five minutes' conversation, they expect a surgeon to attend day and night, at all seasons, and in all weathers, on a sick patient for twelve months. Still more, Mr. Editor. It appears that the worthy gentlemen proposing this worthy scheme, being rather short of ready money—with true lawyer-like acuteness, wolves as they are—determine to make the medical profession pay the expenses of starting their scheme. They have determined that no medical man shall be eligible as an attendant on the assured who does not, at once, insure his own

life for the full amount of £200; and to provide against exigencies, by having a little ready money at their bankers—if they have any—the immaculate gentlemen decide that the professional attendants of the people shall, at the very first, as a condition of their appointment, deposit the trifling amount of five pounds—a pretty little sum when collected from a couple of hundred medical men, and which, doubtless, will go far to pay the first expenses of the scheme, and to enrich the schemers. Now, Mr. Editor, our profession is already eaten up by schemes, most of them proposed by lawyers, and all, "of course," intended for our benefit; but this one seems to me the most extraordinary yet proposed. The idea of making surgeons pay the expenses of a speculation for the benefit of the lawyers is an excellent one—one worthy of legal rapacity and acuteness—but it is in my eyes a snare, from falling into which I wish to warn my professional brethren.

I am, Mr. Editor, your obedient servant,

MEDICUS.

High-street, Marylebone, Nov. 11.

#### HOMŒOPATHY.

By GEORGE HILBERS, M.D., Norwich.

"I think," said the great Harvey, "it a thing unworthy of a philosopher and searcher after truth to return bad words for bad words; but I think I shall do better and act more advisedly, if, with the light of true and evident observation, I shall wipe away these incivilities." The letter of your correspondent on Homœopathy, in the current number of the *Medical Times*, would never have been deemed worthy of notice by me had it not contained an error, into which more than one esteemed medical friend has fallen, who I know is honestly examining into the merits of homœopathy. This error consists in supposing that the homœopathsists say or believe that the medicines in the diluted or attenuated form are capable, as a general rule, of producing any medicinal symptoms when taken by persons in health. In the proving of medicines (*i. e.*, in ascertaining their action on the healthy organism) by Hahnemann and other homœopaths, the undiluted substances were employed in doses varying according to the commonly-received opinion of their medicinal activity; therefore any of your readers who wish to verify the correctness of Hahnemann's provings, as given in the "Materia Medica Pura," must repeat *his* experiments, and not *invent* experiments of their own. Let them, then, take a few doses of two or three medicines in the undiluted state, as aconite, belladonna, nuxvomica, and, having carefully noted day by day the symptoms produced, compare them with those given by Hahnemann. I know that this has been done, and the accuracy of Hahnemann's provings has thereby been wonderfully corroborated.

As a general rule, then, it is only in cases of disease where there are certain morbid symptoms to which the medicine is homœopathic, or more rarely in persons who, without actual disease, are of an extraordinarily delicate, irritable, and sensitive constitution, that we believe visible effects are produced by the attenuated medicines. Every day's experience shows that the human organism is acted upon in the most powerful manner by particles of matter more subtle and more minutely divided than the highest homœopathic attenuations. I remember reading in one of the journals some years since, that if two grains of musk be placed in a drawer, and be allowed to remain there for ten years, it will impregnate everything which comes in contact with it, and at the end of that time will not sensibly have diminished in weight. Supposing any person had entered a room where were one hundred persons assembled, all of whom were morbidly sensitive to musk (a substance, the smell of which, as is well-known, many persons suffer from), the whole of these might be expected to experience certain abnormal sensations which they would at once refer to the musk. If this experiment were repeated every day for ten years, the same results would follow. Now, what is the weight of the musk, which is capable of producing

such a marked effect? But it may be said, this is a rare case, it depends on some peculiar susceptibility, or idiosyncrasy as it is called, in these persons; you cannot draw general conclusions from isolated cases. This is true, but where is the individual who is not thus sensitive to one or other of the invisible influences which hover around us? The smell of fresh paint will give many a headache; the smell of tobacco smoke will do the same to others; the aura of new hay will affect some persons, who live miles even from the spot where it is. Again, what can marsh miasm be, but some undetectable particles of matter diffused through the atmosphere; and who can say that he is not liable to be affected with this? Moreover, the same individual is more or less susceptible, according to the state of his health at the time of exposure. This is a well-known fact. If, then, our every day's experience tells us, that the animal fibre is so delicately constituted, that it may be powerfully affected by particles infinitely minuter than the highest homœopathic dilutions, and this even when the body is in a state of apparent health, why should it be impossible for other infinitely small particles of matter to affect it as powerfully when in a state of disease?

I offer these suggestions, not in order to prove the efficacy of the homœopathic medicines, for any one who would believe in them without experiment, would, to my mind, be scarcely worth convincing; but because I remember that one of the greatest difficulties which I had to overcome, when first trying the medicines, was to get rid of the idea that it was utterly impossible that these globules could have any medicinal action. This often caused me to be careless in the choice of a remedy, and I, therefore, frequently failed in cases which, but for this, I have now no doubt, I should have cured.

Let those, then, of your readers who are disposed to investigate homœopathy honestly, remember, that whatever is worth doing at all is worth doing well. They must not be surprised if at first they find some considerable difficulty in applying the medicines. In complicated cases this frequently happens to the practised homœopath, who, perhaps, for years has devoted many hours a day to the study of the action of the medicines.

If homœopathy is a fallacy, the more persons who examine it, and the more philosophically the experiments are conducted, the sooner it will be proved to be such, and the sooner the bubble will be burst. But such a letter as that of your correspondent is far less likely to injure homœopathy than to excite the unmitigated disgust of every honest man who is so conscious of his own integrity as to be able to believe that others who differ from him in opinion may yet be equally sincere with himself.

One can scarcely feel satisfied in placing much confidence in the statements of a person who writes so much at random, otherwise three lines of his letter would go far to disprove all the rest. He states, that after having swallowed a large number of globules of arsenic, belladonna, and phosphorus, he experienced a feeling of heat in the throat, mouth, and stomach, which lasted for two or three hours. Now, the globules which produced this effect consisted of a small quantity of sugar-of-milk and starch, to which five or six drops of a tincture was added, which tincture (supposing it to be of the sixth dilution, lower than which it was not at all likely to be) contained a billionth parts of a grain of white arsenic, belladonna, or phosphorus to 100 drops of spirits of wine. The actual quantity, then, of the medicine swallowed, in spite of the number of globules through which it was distributed, was infinitely minute, and yet it was sufficient to excite certain abnormal sensations in the mouth, throat, and stomach. If we could depend on the trustworthiness of the observer, surely this would go far to prove that these globules were not quite inactive.

I am, Sir, Yours obediently,

Norwich, Nov. 10.

GEO. HILBERS.

Schönbein's gun-cotton has been objected to by the Board of Ordnance.



## GOSSIP OF THE WEEK.

WAR-OFFICE, Nov. 11.—12th Light Dragoons—Peter Thomas Gunning, gent., to be Assistant-Surgeon, vice M'Intyre, appointed to the 26th Foot. 18th Foot—Assistant-Surgeon James Stewart, to be Surgeon, vice Grigor Stewart, deceased; William Kelman Chalmers, M.D., to be Assistant-Surgeon, vice James Stewart. 26th Foot—Assistant-Surgeon Duncan M'Intyre, M.D., from the 12th Light Dragoons, to be Assistant-Surgeon, vice Home, promoted on Staff. Nov. 20.—7th Foot—Assistant-Surgeon William Sedgwick Saunders, from the 1st West India Regiment, to be Assistant-Surgeon, vice Collings, promoted in the 2nd West India Regiment. 1st West India Regiment—Thomas Frederick Wall, gent., to be Assistant-Surgeon, vice Saunders, removed to the 7th Foot. 2nd West India Regiment—Assistant-Surgeon Adolphus Collings, M.D., from the 7th Foot, to be Surgeon, vice Richardson, promoted on the Staff. Hospital Staff—Surgeon John Richardson, from the 2nd West India Regiment, to be Staff-Surgeon of the First Class, vice Chambers, deceased.

NAVAL APPOINTMENTS.—T. B. Gitt, Surgeon and Agent for Sick-quarters at Donaghadee. Patrick Slevin, Assistant-Surgeon, to the Thetis. Thomas Blennerhasset Elliott, Surgeon and Agent at Sick-quarters at Kilrush. Thomas James Barnes, Acting Assistant-Surgeon, to the Rosamond. F. W. R. Sadler, Assistant-Surgeon, to the Royal Sovereign. William Hobbs, Assistant-Surgeon, to the Poictes. John Acton, Assistant-Surgeon, to the Locust. Charles F. Williams, Acting-Assistant-Surgeon, to the Siren. Assistant-Surgeon—Dr. Lewis, C. Urquhart. Surgeons—J. Moolenburgh Winter, to the Medea; Robert Grigor, to the Albatross; Frederick N. Slight, to the Rosamond; William Robertson, to the Birkenhead. Acting Assistant-Surgeons, Nov. 16.—W. E. O'Brien, to the Birkenhead; William Crawford, to the Medea. Assistant-Surgeons—T. J. Urquhart, to the Woolwich division; C. N. Wilkinson, to Greenwich Hospital; Joseph B. H. Collings, to the Hibernia; W. M. Saunders, to the Victory; William Webber, to the Grappler; Alexander Armstrong, to the Victoria and Albert.

APOTHECARIES' HALL.—Gentlemen admitted members Nov. 12:—Thomas Tyrwhitt Whitechurch Bennett, George Fort Fox, James Johnston Brown, Edwin Cotton Cottingham, Robert Thomas Lodge. Nov. 19:—Lewis George Broadbent, George William Caines.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Court of Examiners, on Friday evening, the 6th instant, the following gentlemen, having undergone the usual examinations, were admitted members of this College, viz., Messrs. Robert Howarth Leach, Shaw, Lancashire; Thomas Waldron Bradley, Kidderminster; William Burns Beatson, Peckham; Robert Gething, Newport, Monmouthshire; John Rambaut, Dublin; Henry Murney, Belfast; John Bland, Chester-le-street, Durham; Jonathan Barber, Sheffield; Foden Hope, Dublin; Humphrey Sandwith, Hull; and Joshua Thorniley Brooke, Stockport. At the same meeting, Mr. William M'Kensie Saunders passed for naval surgeon; this gentleman's diploma, from the same College, is dated January 10, 1840. Mr. William Edward O'Brien also passed as naval assistant.—Gentlemen admitted members on Friday, Nov. 13:—J. M'Keand, J. Bassett, W. Hatton, T. E. P. Martin, W. W. Walter, R. Smith, and R. Jackson.—The Hunterian Museum of this College was, on Friday last, honoured by a visit from the Prince Louis Napoleon, who spent upwards of three hours inspecting its magnificent contents, which were explained to the Prince by Professor Owen.—Gentlemen admitted members on Friday, Nov. 20:—J. D. Ward, W. H. Boutflower, E. Paley, J. Jones, W. Hall.

OXFORD, Nov. 7.—Dr. Jeune, Master of Pembroke College, has given notice that the election to the Medical Fellowship, founded by Mrs. Sheppard, widow of the late Dr. Sheppard, formerly Fellow of Magdalen College, will take place on the 4th day of December next. The Fellowship is open to all

members of the University who have passed the examination for the degree of Bachelor of Arts.

DEATH FROM POISON ADMINISTERED BY MISTAKE.—SUNDERLAND, Oct. 26.—A painful sensation has been occasioned in this town by the death of a young woman named Elizabeth Liddle, who resided in West-street, under the following circumstances:—It appears that the deceased, being very unwell on Thursday evening, sent the daughter of a neighbour to the shop of Mr. Meldrum, a chemist and druggist, for threepennyworth of tincture of rhubarb. When she arrived at Mr. Meldrum's shop it was dark, and she was supplied by a young man about 17 years of age, Mr. Meldrum's apprentice. She returned with the requisite quantity, six drachms, of what she supposed to be rhubarb, which was drunk by Miss Liddle, who was immediately taken ill, and after suffering much during the night, died on the following morning from the effects of poison, it being then ascertained that the unfortunate young woman had taken laudanum instead of tincture of rhubarb. On Saturday afternoon an inquest was held at the Londonderry Arms, before Mr. Maynard, one of county coroners, and a respectable jury, on view of the body of Miss Liddle, and after the whole of the facts had been given in evidence, the jury returned a verdict of "Accidental Death," and at the same time severely censuring Mr. Meldrum's apprentice for the negligence which he had manifested.

A VICTIM TO QUACKERY.—On Saturday last, an inquest was held before Mr. Whiston, jun., coroner, on the body of Robert Welch, at Horsley, aged forty-eight years, who died the previous morning from the effects of tartar emetic, which had been administered the evening before by a person named Thomas Motterham, who has been in the habit of travelling the country with quack medicines for some time past. It appeared from the evidence given before the jury, that the deceased was a patient of Mr. Boden's, surgeon, Smalley, and had been attended by Mr. Boden and Mr. Willis, his assistant, for a fortnight previous to his death. He had been treated for inflammation of the liver, with derangement of the stomach, up to four o'clock on Thursday last, at which time he was visited by Mr. Willis, who pronounced him to be decidedly better, and improving. It also appeared that the deceased had been greatly depressed in spirits, owing to the circumstance of his considering himself suffering from the effects of fever, which is now prevalent. A *post-mortem* examination of the body was made by Mr. Boden, assisted by Mr. Willis, when it appeared that deceased had been suffering from inflammation of the liver and intestines, the latter of which was of very short standing, and had been occasioned by some irritant substance or drug having been administered, which caused much exhaustion and proved fatal to the deceased. From the admission made by Motterham, that he had given the deceased three grains of tartar emetic, at three different times, within a short period, and the evidence of Mr. Boden, which went to prove that the tartar emetic would produce the symptoms which caused death, the jury, after a lengthened investigation, returned a verdict of "Manslaughter" against the said Thomas Motterham, whereupon the coroner issued his warrant for his committal to gaol, for trial at the next assizes.

FEES TO MEDICAL POLICE.—In several cases of persons being brought to the station-house drunk, and incapable of taking care of themselves, the police applied to Mr. Greenwood (Clerkenwell), that he would order each prisoner to pay 7s. 6d., being the amount of the doctor's fee.—Mr. Greenwood said he did not understand this demand, and inquired of the inspector on duty how it happened to be made so indiscriminately.—The Inspector stated that they had received strict orders from the Commissioners of Police, that whenever a person was brought to the station-house, apparently insensible, they were at once to send for a medical man. As most of those charges were brought in at unreasonable hours, the fee charged for the attend-

ance was 7s. 6d.—Mr. Greenwood said the law gave him no power to order payment of this sum, and thought it would be very hard to compel every person so charged to pay it.

THE RULE EXCLUDING PHYSICIANS.—Dr. Kane, ex-mayor of Kilkenny, had not been included in the list of magistrates for his native city, Kilkenny, created by Lord Besborough. The omission was ascribed to political causes, the doctor being one of the "Young Ireland" party. His lordship's secretary, Mr. Connellan, denies the cause assigned, and transmits to Dr. Kane the rule of the Chancellor, invariably excluding from the magisterial bench all practising physicians. Dr. Kane denies the "invariable" application of the rule; and asserts, that there are at least thirty practising physicians in Ireland holding the commission. The Chancellor, however, will hold firm to the rule, and for all-sufficing reasons.

OBITUARY.—Nov. 5, at his house, Johnstone-street, Bath, Dr. S. Fisher, M.D., aged 85. Nov. 3, at Old Brompton, G. W. Morris, Esq., surgeon, late of Barnet, aged 50. At Falmouth, the island of Jamaica, on the 27th of September, aged 59, John Chambers, Esq., surgeon of the First Class, Hospital Staff, much and deservedly regretted. Nov. 3, at Thatcham, E. F. Mecey, M.D., aged 27. At Dalkeith, 31st ultimo, Dr. Robert Butler, surgeon, Royal Navy, aged 33. At Rio de Janeiro, 5th September, James Virtue, M.D., son of Mr. James Virtue, Edinburgh. At Calcutta, 7th September, Dr. Richard Hair, in the twenty-fifth year of his age, youngest son of the late Henry Hair, Esq., Edinburgh. At Schoolhouse, Methlic, 25th ultimo, George Pirie, surgeon. Sept. 27th, at Falmouth Jamaica, J. Chambers, Esq., surgeon, First Class Hospital Staff, aged fifty-nine. Nov. 6th, at Mullingar, F. O'Reilly, Esq., M.D. On the 11th of August last, at Cape Coast Castle, Western Africa, after an illness of eleven days, from the fever of the country, James Lilley, Esq., colonial surgeon, in the 40th year of his age. Nov. 17th, W. Davies, surgeon, of Caemawr Llanerchymedd, aged 63. Nov. 13th, at Modbury, N. B. Avent, Esq., surgeon, aged 42. On the 21st of Nov., at Croydon, Dr. Roberts, aged 84. At his residence, Magliera, Peter Henry, Esq., surgeon, royal navy, aged 75.

## MORTALITY TABLE.

For the Week ending Saturday, Nov. 21, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES.....	966	1000	968
SPECIFIED CAUSES...	965	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	157	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	100	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	147	151	157
Diseases of the Lungs, and of the other Organs of Respiration.....	320	313	294
Diseases of the Heart and Blood-vessels.....	39	29	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	74	70	72
Diseases of the Kidneys, &c.	9	8	9
Childbirth, Diseases of the Uterus, &c.	22	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	13	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	1	2	2
Old Age.....	55	66	67
Violence, Privation, Cold, and Intemperance.....	28	27	26



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## SUMMARY.

DEC. 5.

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## PROGRESS OF MEDICAL SCIENCE, INCLUDING CHEMISTRY AND PHARMACY.

## France.

## ACADEMY OF SCIENCES.

Meeting of Nov. 23; M. MATHIEU in the Chair.

**HYGIENE OF POPULOUS CITIES.**—M. Chevreul read a paper on this subject, and insisted chiefly upon the following points:—After having given experimental proof of the formation of hydrosulphuric acid in waters containing alkaline sulphates and organic matter, the author in previous communications explained the putrid state in which water is often found in the Parisian cisterns, the decomposition of water preserved in oaken casks for the navy, and the alteration of sea-water allowed to stagnate in the hold of a ship. The accumulation of organic matter in the soil of large cities also accounts for the unwholesomeness which well-waters acquire frequently; and it is particularly to the presence of sulphate of lime in large proportions in the soil of the city of Paris that its peculiar insalubrity may be traced. In order to obviate as much as possible these causes, the establishment of cemeteries outside the towns, the continual washing of the streets and kennels, the multiplication of sewers, are the methods universally adopted. But for the complete neutralization of the above-mentioned causes of insalubrity, we find only a small number of measures. The first consists in the free circulation of air and light in all places which may become unwholesome from the decomposition of organic matter; the second, in the establishment of numerous wells, in which a continual renewal of water will tend to purify the soil; and the third, in numerous and well-distributed plantations throughout the city.

## TREATMENT OF VARIOLA, BY M. SERRES.

The remarks brought before the academy on this subject, at its last meeting, by Professor Piorry, appeared to M. Serres of sufficient importance to warrant him in making some further remarks.

The object of topical applications in smallpox is to imitate as far as possible the action which takes place in the pustules of varioloid eruptions; and Jenner is the first to whom it occurred that cauterization of the vaccinal pustule might moderate its intensity. Previously to Sydenham, physicians, preoccupied with humoral doctrines, did not notice that the secondary fever of smallpox is really the greatest cause of peril in the course of the disease, and that all the efforts of art should tend to diminish its violence, by endeavouring to moderate the eruptions. Sydenham was the first to adopt this practice, and to this day we follow the precepts he laid down. Cotonio recommended soothing lotions on the face during the eruptive stage, with a view of producing abortion of some of the pustules. In 1817 M. Serres employed cauterization of the pustules with nitrate of silver, and succeeded not only in preventing the swelling of the face, which accompanies their development, but also the formation of scars. But the application was painful, and, some years later, M. Serres substituted for it mercurial applications, which M.

Briquet also employed with success in 1838, and the Vigo plaster was selected as the most appropriate of hydrargyric preparations. M. Serres's anatomical researches have led him to the discovery, that the fully developed pustule of variola is formed by two vesicles included in each other: one is superficial, and called by the professor, on account of its nature, "vésicule varioligène"; the other is deeper, and designated under the name of "vésicule pustulente." For a future communication, Professor Serres will enter further into the history of these vesicles, and illustrate their influence upon the progress of the various forms of smallpox.

## ACADEMY OF MEDICINE.

Meeting of Nov. 24; M. ROCHE in the Chair.

## THE PLAGUE.

The discussion was resumed on the seventh conclusion, by which it is provided that "discretionary powers shall be vested in the medical authorities of the home ports, permitting them to prolong the quarantine when the plague has appeared on board during the passage, or when suspicious cases have been observed amongst the seamen or passengers."

M. Mélier moved, as an amendment, that in such cases the duration of the quarantine be the same as when the ships bear a foul bill of health, *i. e.*, fifteen days, including the passage. The amendment was adopted.

The next section, relative to the loading and ventilation of the goods of the passengers, was also adopted.

The following paragraph gave rise to a long and confused debate: it runs thus:—"In all cases the present methods in use for the purification of goods, to be considered useless or illusory." MM. Gérardin, Moreau, and Adclon objected strongly to the adoption of this broad assertion, and it was defended with equal warmth by MM. Prus and Bagin. It was agreed to by the academy.

The meeting adjourned at five.

## SOCIETY OF SURGERY.

Meeting of Oct. 16; M. LENOIR in the Chair.

## ANATOMY OF THE WOMB.

M. Huguier remarked that many proofs might be brought forward in order to demonstrate that the lining of the uterus belonged rather to the order of serous than of mucous membranes. Heister, Morgagni, Ribes, Chaussier, Dugès, and Madame Boivin compared it to the serous membrane which lines the vascular system. M. Cruveilhier admitted its mucous nature during pregnancy only. All anatomists, and Naboth himself, stated that they never met mucous follicles in any other part than in the cervix, and Morgagni examined the body of a woman who died suddenly during menstruation, and found follicles only in the cervical channel. M. Huguier proceeded to state that the presence of cervico-uterine adhesions, that the serous nature of the fluids occasionally found

between the decidua and the uterine wall, and of the fluids collected in the cavity of the womb, in cases of obliteration of the cervix, whereas blood or mucous fluids accumulated in the cervical channel when the os uteri was permanently closed, went to prove the serous nature of the lining of the womb. In women affected with uterine catarrh, when mucus is found at the vaginal orifice, it might be asserted to have originated in the cervix, and when M. Huguier had an opportunity to examine bodies after death, he had sometimes found mucous matter in the uterine cavity; but it could be traced to the cervix, whence it had ascended in the branches of the arbor vitæ. What, besides, would have been the physiological function of a mucous secretion within the uterus? Might it not have interfered with the attachment of the ovum? M. Huguier, therefore, thought that, when all these considerations were brought to bear upon the subject, very little doubt could remain on the difference of nature of the uterine and cervical linings, and these differences appeared to him to give rise to important diagnostic and practical consequences. Thus, it being demonstrated that the secretions of uterine catarrh arise entirely from the cervix, it is to the cervix alone that the methods of treatment should be applied. It was by the obliteration of the follicles only that the catarrhal discharge could be arrested; and this M. Huguier sought to obtain by dividing the cervix with a long-bladed knife, in order to cauterize with greater facility the follicular surface.

M. Robert could not adopt M. Huguier's views on the various points he had alluded to; he would say, that the absence of epidermic productions in the uterine fluids was fully explained by the fact, that no epithelium existed within the cavity of the viscus. Morbid anatomy seemed to contradict M. Huguier's statements. Thus, in acute inflammation of the body of the womb, its lining membrane assumes the appearance of a mucous surface, false membranes are seldom met with; and in chronic inflammation granulations are formed; it was, besides, impossible to admit that during gestation the ovum was contained one half in a mucous and the other half in a serous cavity.

M. Chassaignac protested against the assertion, that no epidermis existed within the uterus. The vibrating and the tessellated pavementous epithelium had been, on the contrary, described with care. The microscope had also shown the existence of follicles in the cavity of the womb, analogous in appearance to the glands of Lieberkühn. Weber had discovered them in the cow, and had afterwards seen them in the human subject at the second month of utero-gestation. Kranze and Berres had also placed beyond the reach of doubt the existence of these follicular bodies, which M. Huguier did not admit. Besides, the fluids which are secreted within the body of the uterus were acid, as in the vagina, whereas they were alkaline in the cervical channel; and the identity of the reaction in the vagina and in the uterine cavity would naturally



lead to the belief that these liquids were secreted by analogous membranes.

The meeting adjourned at half-past five.

**CLINICAL MIDWIFERY, BY PROFESSOR P. DUBOIS.**—A woman, aged thirty-two, was brought to the hospital on May 11, 1844: she had been confined four times already, and her labours had all been natural. On May 9 she experienced the first pains, and a *sage femme* having been called to her, examined *per vaginam*, and accidentally ruptured the membranes, the amniotic fluid escaped, and the pains ceased. The patient was left, and slight pains having reappeared on the morning of the 11th, the *sage femme* returned, assisted by a physician, who recognised a transverse presentation, and endeavoured unsuccessfully to turn the child. When the patient was brought to the hospital, the right arm was lying in the vagina, and the thorax was descending through the brim; the head was firmly fixed in the right iliac fossa. Spontaneous evolution was beginning; the mother being extremely exhausted, its progress was very slow; and, no doubt remaining as to the death of the fœtus, M. Dubois determined upon performing decapitation. With a pair of strong scissors, the vertebral column was speedily divided, but the soft parts were left untouched. The section of the cervical vertebrae permitted the completion of spontaneous evolution, and the preservation of the soft parts of the neck rendered easy the extraction of the head. The child weighed six pounds, and was well constituted—his length was forty-nine centimètres. The placenta was removed immediately after the fœtus. Two hours after delivery the mother expired without any pain, but to all appearance completely exhausted. On dissection, an enormous effusion of blood was found under the peritoneum, and in the cellular tissue of the pelvis. The anterior wall of the uterus, the os tinea, and the superior part of the vagina were ruptured; and the laceration referable to the efforts made for the purpose of turning, after the amniotic fluids had escaped, occupied a length of nine centimètres. No traces of peritonitis were observed.

#### LA CHARITÉ.

**CLINICAL LECTURE, BY PROFESSOR VELPEAU.**  
**EFFUSIONS OF BLOOD.**

When, from the action of external violence, or from any other cause, blood is extravasated into our tissues, the transformations which it undergoes constitute one of the most important and one of the most curious objects of study. Blood effused in our tissues does not coagulate, but spreads in accordance with the laws of gravity. It will, therefore, generally descend from the knee to the foot, from the elbow to the hand. But this natural tendency to descend is frequently interfered with by the different density of the various layers, and by the presence of aponeuroses, &c. Thus, when blood is extravasated in the region of the knee, instead of descending towards the foot, it sometimes is observed to ascend in the thigh, in consequence of the difference of density of the structures of each part of the limb. The absorption of infiltrated blood is a phenomenon of equal interest. But the extravasated liquids undergo other, and perhaps more important, modifications. When circulating in our vessels, blood is assuredly a living fluid—its life is in its movement, and repose is death. When extravasated and not absorbed it becomes a foreign body, and is soon converted into various productions, the origin of which sometimes remains enveloped in doubt. Thus it divides into clot and serum; the serum itself into colouring matter, by which is constituted ecchymosis, and pure serous fluids, which the vessels easily absorb when they are infiltrated. This facility with which infiltrated blood is taken up is in itself a remarkable and interesting fact: it teaches us that an infiltration, even extensive, is not generally dangerous, provided it is not complicated by the presence of a wound of the integuments.

On the contrary, the blood be collected, transformation becomes possible; either the clot or the serum will remain unabsorbed: in the first case, hæmatic tumours will be produced; in the latter, a cyst or a hydrocele. These transformations of the

blood seem to us to be, in a great measure, dependent upon the organ or the texture in which the extravasation has taken place. Thus, effusion in lamellated structures is often followed by complete absorption—an event of more uncommon occurrence in serous cavities. Let us not, therefore, forget the following capital conclusions:—Infiltrated blood generally disappears; accumulated blood exposes the patient to various local disorders; blood extravasated into porous textures can be absorbed readily, but when effused and collected in serous cavities usually requires the interference of surgical art.

It is natural that the therapist, bearing in mind the difference of prognosis which distinguishes two affections so closely connected, should inquire if it be not possible to convert one into the other. Infiltration disappears spontaneously; it is, therefore, the first thought which strikes the surgeon, to convert, if possible, collections of blood into infiltrations. Not only this transformation is possible, but it is easy. Suppose, for instance, an effusion of blood to exist in a serous cavity, a communication can easily be established between that cavity and the neighbouring porous textures, into which the effusions should be infiltrated. By the introduction of a narrow-bladed knife, the parietes of the sac which encloses the blood should be opened, and the infiltration of blood facilitated as much as possible.

As to the consequences of effusions of blood in the breast, in the lung, in the prostate, in deep-seated organs, they may be judged of by induction. It sometimes happens that, after separation of the clot from the serum, neither is absorbed; but, by the dissolution of the former in the latter, a chocolate-coloured fluid is produced. When the coagulum remains alone it is converted, after a time, into a tumour, resembling closely the concentric layers of aneurisms. When the effusion has taken place in a region where movements are frequent, the clot is divided into numberless bodies, as it happens in the knee, the wrist, or the elbow; and these were formerly mistaken for hydatid cysts.

When the blood has been effused in the parenchyma of deep-seated viscera, still more remarkable changes are observed: the blood becomes again organized, and gives rise to living tumours, susceptible of growth, and perhaps of acquiring a malignant nature. These opinions, which we brought forward many years since, were then the result of analogy and inference; now it is different: microscopic observation has shown the blood discs to form the chief, sometimes the only, element of these tumours, which we supposed to be due to extravasated blood. According to the tissues in which these tumours are developed; they vary considerably. In the prostate we see them resembling closely the texture of the gland; in the womb we meet with them under the name of fibrous growths; in the breast, again, they form fibrous productions: in a word, hæmatic tumours in each organ seem to take an aspect closely approaching that of the organ itself.

D. M'CARTHY, D.M.P.

**NAVAL PROMOTIONS AND APPOINTMENTS.**—Mr. Marmaduke Cremour French, Assistant-Surgeon, to be Surgeon; Assistant-Surgeon Robert P. R. Sparrow, confirmed to the Resistance; D. N. Tucken, Assistant-Surgeon, to the Ocean; W. Swainson, Surgeon, to the Penguin; Surgeon James Wilson (B), to the Caledonia.

**ROYAL COLLEGE OF SURGEONS.**—Gentlemen admitted members on Friday, Nov. 27:—W. Meehan, J. Newell, D. Wilson, M. Ledger, G. Baddiley, J. F. Jackson, H. H. Tribe, F. Manger, J. J. Halls, R. Graveley, and J. G. Mushet.

There is a vacancy for a surgeon in the Marylebone General Dispensary; also in the Westminster Hospital, for a surgeon and house-surgeon.

**THE NEW BOTANICAL GARDENS AT CAMBRIDGE.**—The works at these grounds have at length been commenced. On Monday the ceremony of planting the first tree was gone through by the Vice-Chancellor, near the intended entrance in the direction of the Trumpington-road. The Professor of Botany planted the second on the east side of the garden.

## ORIGINAL CONTRIBUTIONS.

### The Nature, Causes, and Treatment of Mental Diseases.

By M. PINEL, M.D., Member of the Academy of Medicine, formerly Physician to the Bicêtre and Salpêtrière Asylums, Author of the "Traité Médico-Philosophique sur l'Aliénation Mentale," "Médecine Clinique," "Nosographie Philosophique," &c. &c. Translated, with Notes, illustrative of some important Doctrines in Physiology, Phrenology, and Moral Education,

By Dr. COSTELLO,

Principal of Wyke House Asylum, Editor of the Cyclopædia of Practical Surgery, &c.

#### HYGIENIC TREATMENT OF INSANITY.

In affections of the brain, when the delirium is so great or so prolonged as to cause complete mental derangement, the patient must be subjected to constant surveillance, and must, as a matter of course, be placed in a locality possessing such arrangements as his safety, comfort, and the tranquillity of others require. It is therefore absolutely necessary that the establishment in which he is to be received, whether it be public or private, shall be properly constructed, and arranged throughout its smallest details so as to present all the conditions suitable to its peculiar purposes. This material arrangement of the establishment, simple as it may appear, and without which proper treatment is impossible, is nevertheless subject to certain rules and principles which have only of late years been reduced to precepts of easy application; although physicians have always acknowledged the immense resources that might have been rendered available, from the combination of hygienic means in a proper disposition of the places of habitation with the advantages of alimentary regimen, manual occupations, intellectual and gymnastic exercises adapted to the degree and kind of derangement, as well as to the rank and habits of the patient. Viewed in this light, hygienic treatment is deserving of very particular attention.

We may even go so far as to suppose, in order to place the practical truths which such treatment would establish in a stronger light, that we are called on to organize an establishment which would be a healthy and secure refuge for unhappy beings labouring under insanity.

Our first care would be to select a proper site. We should prefer it at a short distance from a town, on a gentle elevation, which would not be commanded by any importunate neighbourhood, and with an abundant supply of good water at hand. The walls of enclosure, built up in open cuttings, should be sufficiently high for security without shutting out the views of the surrounding country. In this way the appearance of liberty is combined with seclusion.

The site the least susceptible of damp, and the best for the buildings themselves, would be that in which the foundation was sand or gravel.

The buildings should present to the east, a disposition which gives free circulation to the north and south winds through the courts, and protects the patients from exposure and inconvenience during the great heat of summer.

The whole superficies should contain twenty-five acres, including the ground required for the labour of farming and gardening.

Every establishment for the insane ought to consist of two divisions, entirely separated—one for the males and one for the females.

Before entering on the details of the arrangements appertaining to each of these divisions, and the classification of the patients, we shall speak of the general service, that is, of the administrative department, the chapel, kitchen, pharmacy, baths, laundry, and farm.

The administrative department forms the centre of the façade, and consists of cellars, store-rooms, offices, saloons, and the apartments of the physician and clerks. The cellars and ground floor form the stores for provisions of every kind. By this arrangement, the bustle caused by the arrival of carriages, and the passage of strangers through the interior of the buildings, is avoided. On the ground floor, to the right and left, are situated the parlours



for the male and female convalescents, where the physician allows of the visits of friends.

In the offices all the business relating to admissions, discharges, and deaths, and to the accounts, is transacted.

Many physicians of eminence, and of known moral character, will not hear either of chapel or clergymen in asylums for the insane. This prescription is too rigorous. It certainly cannot be doubted that in those countries that are under Catholic authority, and where religious monomanias are reproduced under a great variety of mystic forms, the influence of the temple and of its ministers may be attended with serious inconveniences. But on this point the head physician should be invested with the whole authority: in him should be the right of refusing access to the indiscreet, as well as of pointing out such of the patients as may be allowed to attend worship without danger. Many of those unfortunates, in recovering their reason, feel the want of returning to the religious habits in which they had lived, and derive from the practices of religion motives of hope and resignation. In our opinion, therefore, the chapel is a necessary part of the asylum, and its site should be at the entrance of the establishment.

The kitchen should be flagged, and furnished with boilers and hot plates. At its angles should be four cabinets—the pantry, larder, butler's room, and office. It should be large, well ventilated, and of an elevation equal to two-thirds of its width. In the middle the furnace should be placed, thirty inches high, with a surface of twelve feet by six. It should be furnished with six boilers, two of them being large, two middling, and two small, and with cast-iron plates, and ovens of different sizes. The kitchen should also be provided with a sink.

The pharmacy is another important department. It should consist of the shop, the laboratory, the dispensary, the drug-store, a sink, and an apothecary's room.

In insanity, baths form a powerful means of treatment. A well-regulated establishment ought to be provided with baths of every kind abundantly. Common baths, medicinal baths, douches, moist, and dry stoves. Each division, male and female, should have its baths entirely separate, besides several smaller bathing-rooms for the service of the house. Over each of the large rooms destined for the patients' baths should be placed the apparatus for douches, water-cisterns, furnaces, and vapour-baths. In the room below there should be six baths, besides two others set apart for sulphurous baths. The flooring of the bath-room should be of oak, and moveable from the flagging beneath.

The laundry is of extreme importance in an establishment. It prevents the inconvenience of sending the washing out, and furnishes occupation both useful and profitable for certain patients. It should be provided with two washing-troughs, two steepers, and a large boiler. The upper parts of the building should be reserved for the drying and folding of the linen.

The farm is not an idle appendage to such an establishment. Laid out in the usual way, it contributes produce for the service of the establishment. At the head of this small agricultural institute we should have an intelligent man, accustomed to having patients work under his direction. He should have discernment to set them to such manual labour as best suits them. The formation of earthy mounds, the raising of vegetables or corn, the care of animals, gardening, the in-door work of the farm, and all the occupations of a property in full profit, will afford scope for employing the patients according to their strength or inclinations. He should know how to interest them, and make them take pride in the performance of their task. We admit into the farm none but the convalescent, or those who are almost restored to reason, especially reserving for the females the washing and care of the linen. After these general arrangements come the particular ones which relate especially to the distribution and classification of the patients, according to the degree or nature of the alienation. Such a classification, well ordained, is, in itself, a most powerful auxiliary of the treatment. "A methodical distribution of the patients into different classes

enables us to take in at a glance the measures to be taken respectively for their food, cleanliness, and their regimen, physical and moral."

This truth, proclaimed more than forty years since by Pinel, has been but tardily reduced to practice, although its obviousness was much greater as a practical want than as a precept. It has only been slowly and bit by bit that successively at the Salpêtrière and Bicêtre some slight order has been obtained in the classification of the patients; and even this has been effected without any general views, and always under the imperious necessities of the old buildings.

Desportes is of opinion, that the insane should be arranged in twelve classes: the first, for the furious under treatment; the second, for the furious incurable; the third, for the tranquil residing in cells; the fourth, for the incurable to be placed in cells; the fifth, for the furious epileptics; the sixth, for the tranquil epileptics; the seventh, for patients in dormitories; the eighth, for the incurable in dormitories; the ninth, for the melancholic; the tenth, for the imbecile; the eleventh, for those who are in the infirmary; and the twelfth, for the convalescent.

This distribution of the patients is much too complicated, and falls, perhaps, into the opposite extreme. In our opinion, it may be much simplified, and without infringing upon its importance, by reducing it to the six following subdivisions, applicable, of course, to the male and female divisions respectively. First, the convalescents residing near the centre of the house, and having ready communication with it; second, quiet patients under treatment, the melancholic, hallucinating, and tranquil maniacs; third, the tranquil incurable, and imbecile; fourth, the refractory incurable and epileptic; fifth, the furious in cells; sixth, the infirmary, part of which is for accidental diseases, and part for the reception of the paralytic and dirty.

With this distribution of the patients in buildings upon the ground floor and separated from each other, each having a garden enclosed by a wall to prevent the escape of patients, an effective order and surveillance are readily established and easily maintained.

The remainder of the establishment, the farm and its enclosures, should be open to the patients only as a momentary walk, and always under the surveillance of one or more attendants.

But, whatever be the principles that direct such an establishment, and the modifications which it must undergo, either from locality or necessity, the physician by the nature of his studies, and the deep interest which he must feel in the success of his treatment, must be supreme judge, and the soul of everything that occurs in the establishment. Reil, and those who, sharing in his opinion, require that an asylum should be governed by a triumvirate, composed of a physician, a physiologist, and a moralist, could have had no experience on this subject. And, moreover, ought not the physician of an establishment to be in himself fully competent, in regard to these three conditions of qualification? The chief point of importance is to impress on the patients the idea of power being centred in one only, who holds their fate in his hands, who punishes, pardons, and restores to liberty. It is only by the force of his influence that he is enabled to overcome the obstacles of routine, and to impart regularity to all parts of the service. Even in this, it is humiliating to avow that the good encounters as much resistance as the bad.

Each day the physician sees his patients, arranges their classification, transfers them from one division to another, prescribes measures of discipline, delivers certificates of cure, and authorizes the visits of friends. He lives in the midst of them, bestowing upon them almost all his time, in order the better to observe them, and thus to be the better able to cure them.

Such a degree of abnegation can only spring from the most eminent qualities of mind. He requires a peculiar organization, and an exterior and appearance of command. He must have a strong and active constitution, to enable him to bear much labour and loss of sleep. He must have a dignified and calm address, a full-toned voice, a benevolent look, and an agreeable countenance. The insane

do not forgive the slightest deformity in their physician.

In his conversation with the female patients, his manners and his actions must be more soothing and affectionate. For them knowledge alone does suffice. He must employ a sort of coquetry of knowledge, whilst appearing to interest himself, and even to give way to their childish fancies; he must, either in the form of a request, or of disinterested advice, insist upon the execution of his orders.

The great art of the physician is to appear to take seriously all those little secrets and mysteries which, although of no importance in themselves, may serve as the means of gaining confidence, and thus serving as the first step towards that cure which the slightest indiscretion might defeat. Then the medical service must also have its executive. At the head of each division of the male and female there must be a superintendent, having under their orders all those that attend upon the patients. Each of these superintendents, in their respective division, must be responsible for its good management. They must see to the execution of the rules, to the direction of the management, to reprehend the failures of service, to look to the food, linen, the keeping of the dormitories, and the patients. They must be able to give an account at any moment of the state of every patient. They must govern with justice and benevolence, grounding their authority upon the respect which they inspire, and not by harsh and arrogant manners.

Another point not less important is the choice of the attendants themselves, who are to take care of the patients. Destined to be continually with them, they exercise rightfully over their minds an influence more powerful perhaps than that of the physician himself. One must have lived long amongst the insane to conceive how difficult it is for those who attend upon them to control the impulses of revenge, or anger arising from the provocations, insults, blows, and homicidal attempts of certain furious patients. Such force of character and self-denial are rarely found in the class from which those attendants are chosen.

It is therefore necessary to form them and to instruct them without ceasing in their duties towards those patients. They are constantly to be reminded that the insane are under the influence of a disorder which takes away all responsibility from their words and actions; that they are to employ, in regard to them, that mildness and persuasion of which the heads of the establishment give them an example, and that they are dealing with fellow-beings deprived of the use of reason.

This wisdom, the more difficult from being practical, and to be made use of unceasingly, can only be developed through a strong feeling of Christian charity. And hence several physicians, especially Horn, have proposed to form schools for such attendants.

Pinel himself has greatly simplified this question by demonstrating the advantages of employing at the Salpêtrière and Bicêtre as servants, patients who had recovered; they are in general more mild and compassionate, treating with indulgence a malady from which they had suffered themselves, and to which they are still perhaps liable. The remark is profoundly true, and ought to be turned to account whenever it is possible.

## REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 159.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

There are occasionally particular periods when the introduction of a friend may prove of the happiest effect, as is well illustrated in the case which came under the notice of Dr. Gooch, of a lady, twenty-eight years of age, who suffered from melancholia a few months after the birth of her second child. She was sent to a cottage pleasantly situated, and separated entirely from her friends. She was gloomy, and for several weeks manifested no improvement. At length she imagined she was to be



executed for crimes she had committed, and faneied every noise she heard was that of workmen employed in erecting the scaffold. Every evening at dusk she would station herself at a window, and fix her eyes on a white post—this was the ghost of her husband. Many weeks passed in this way; the husband became impatient, and demanded an interview; this was refused, he being told that patients are more likely to recover when completely separated from their friends, and that if she saw him she would say, it was not himself but his ghost. The husband, however, persisted, and an interview was appointed. When he arrived at the cottage he was told she had passed a tolerable night, was rather more tranquil, but there was no abatement of her gloomy notions. The husband thus describes the interview:—

"As soon as I entered the drawing-room where she usually spent the day, she ran into a corner, hid her face in a handkerchief, then turned round, looked me in the face, one moment appearing delighted at the thought that I was alive, but immediately afterwards assuming a hideous expression of countenance, and screaming out that I was dead and came to haunt her. This was exactly what Dr. ——— had anticipated, and for some minutes I thought all was lost. Finding that persuasions and arguments only irritated and confirmed her in her belief, I desisted, and tried to draw off her attention to other subjects. It was some time since she had either seen me or her children; I put her arm under mine, took her into the garden, and began to relate what had occurred to me and to them since we parted. This excited her attention; she soon became interested, and I entered with the utmost minuteness and circumstantiality into the affairs of the nursery, her home, and her friends. I now felt that I was gaining ground, and when I thought I had complete possession of her mind, I ventured to ask her, in a joking manner, whether I was not very communicative for a ghost? She laughed. I immediately drew her from the subject, and again engaged her attention with her children and friends. The plan succeeded beyond my hope; I dined, spent the evening with her, and left her at night perfectly herself again."

The next morning, in a state of great anxiety, he went to know whether his success was permanent; but her appearance at the window with a cheerful countenance soon relieved his apprehensions. While there, Dr. ——— arrived, went up stairs, without knowing the result of the interview, and came down saying, "It looks like magic!" She was ordered to the sea-side to bathe. As soon as the day of her departure was fixed, she began to droop again, and the evening before leaving she was very low, and on the morning of setting off was as bad as ever. This state continued for several weeks, in spite of sea air and bathing, and then ceased as suddenly as it had done before, apparently in consequence of interviews with friends, calculated to remove those apprehensions which haunted her. She has since then continued perfectly well, and has had another child, without the slightest threatening of her former malady.

Agreeable, pleasant, and useful occupation, with plenty of exercise in the open air, should be constantly employed in the treatment of insanity; the farmer in the north of Scotland, who derived so high a reputation for his success in curing mental disease, trusted entirely to physical labour in the field, which was often of a most laborious character.

Mere irrationality does not require restraint; control or guidance may be necessary; but how wicked to confine a person, merely because he is irrational. As Dr. Mason Good has said—"While several, or even all, the mental faculties are slightly weak or sluggish, or inaccordant with the action of the rest, they are scarcely subjects of medical treatment, for otherwise half the world would be daily consigned to a strait waistcoat." It is in fact only when these changes are most striking that they constitute real disease of the intellect. Just as there are maladies of the body, so there are also diseases of the mind. No one is so silly as to prescribe quiet and confinement for every corporeal

indisposition, and there cannot be a doubt that mental disease must not be subjected to more arbitrary and empirical practice.

Until recently, a man was said by his relations or friends to be incoherent and inconsistent in his actions; these friends applied to a mad doctor, who, coming contrary to the wishes of the patient, finds him excited, and indignant at his intrusion; this excitement justifies the full accounts the doctor has had related to him. Another medical man is sent for; these, having seen the patient together, consult; it may happen that the second opinion called in, however well based on sound education, may not be the result of experience; besides, the great man himself, this mad-doctor, "sees madness in his eyes," discovers much "lurking mischief"—it is true, it is at present "latent," but a few days will show his "young friend" his opinion is correct. The fatal signatures are attached, two powerful keepers shortly attend, and by main force drag this injured individual from his inhospitable home, to a still more repulsive and dreaded abode. The resistance a patient may make depends very much upon his physical temperament; but, once away from the sight of his friends, little mercy can be expected from his keepers: for although there may be, and no doubt there are, exceptions, yet, taking these men as a class, they are violent, vindictive, tyrannical. I am horror-struck at this moment as I think of the confessions of one of these men, voluntarily made to me, when a mere tyro in the profession. But, to avoid digression, the poor patient arrived at the asylum, is placed in a room by himself, and, as was formerly the case, was either left to himself, or was visited by the proprietor, or by some one in authority, *this very probably being the same person who had ordered him into confinement.*

Who can wonder to find this unfortunate patient deeply resentful, to see him strongly excited? The whole circumstances, subsequently to the professional visit at his own house, have been sufficient to overweigh the balance of a mind far more powerful than that of many men now daily transacting their various vocations. It is not so much to the removal that I object, as to the whole circumstances connected with it, and the abuses to which it leads. I highly deprecate the very idea of a medical man being the proprietor of an asylum for the insane; but when I find that this very person was, until very recently, selected to judge whether the alleged lunatic was or was not insane, whether he was to be removed to his *own* asylum, I cannot but feel surprised that any medical practitioner could place himself in such circumstances. And should this opinion be considered unjust, my answer is, turn to history, read what man has been, what man is. There is sufficient in legal and in medical literature to justify strictures much more severe than I have made; and while acknowledging the philanthropic feelings which actuate the majority of the profession—a profession which is second to none in usefulness, in kindness, or in charity—still I know that there is a class, and tell me in what society they are not to be found, there is a class who, preferring self to the interests of others, provide for themselves in a manner which will not bear the scrutiny of honest men.

The emoluments derived from lunatics are often large, very large; the stake being high, the temptation is the greater, and numbers will have an awful account to render hereafter for actions which have not only been dishonest and unjust, but which have been cruel and malignant; having not only ill used those who should be considered fit objects for restraint, but having incarcerated others who ought never to have been admitted within their iron barriers.

It may often be necessary to remove a patient from home—he is irritable, perverse, inconsistent; it may also be advisable that this removal shall absolutely separate him from his friends; but then how much better that all this arrangement should take place as the suggestion of his medical attendant. Why apply to a mad-doctor for such a case? The medical practitioner ought to be instructed—nay, in many instances he now is instructed in mental disease. The County asylums are being gradually thrown open, and soon it will

be as essential for every medical man to know how to treat a disease of the mind as it at present is to prescribe for a corporeal malady.

The profession is under a debt of great obligation to Dr. Webster, who, as a governor of Bethlem Hospital, strongly advocated the importance of throwing open its wards for the purposes of clinical instruction. (See "Observations on the Admission of Medical Pupils to the Wards of Bethlem Hospital for the purpose of studying Mental Diseases," by John Webster, M.D., &c.)

I am aware it is said mental disease is complicated—it is so; but there is no very great difficulty in estimating the amount of benefit resulting from any established rules of treatment which have generally hitherto been adopted. Disease of the mind is complicated, and the persons who have specially undertaken to cure that disease have, at present, individually done very little in the way of suggesting either therapeutical, moral, or general means for alleviating or curing such an afflictive disorder, and this too with ample means of investigation before them; the desire has always been to keep the system or plan of treatment "close." Even to this day their practice is often secret, empirical.

Nothing can be wiser than the example shown by the talented and humane physician at Hanwell, Dr. Conolly; he, in following out the humane system of Pinel, has proved that iron bars incite to mischief; that physical restraints augment and multiply the very evils they were intended to subdue; while the kindness shown by him personally to the patients, and diffused by him through the attendants, both male and female, proves that honesty, humanity, philanthropy, and talent, have in a very few years, effected more for the comfort, safety, and even the cure of the insane, than has ever been accomplished by the advocates of intimidation, coercion, and secret and obscure treatment.

This humane physician says—"To those who have opportunities of observing the extraordinary changes wrought in the most violent recent cases, by continual patience and kindness, it cannot but appear probable that some among the older patients, who remain invariably sullen or morose, might have been benefited at an earlier period, if they had not been treated roughly and without consideration."

I may here with great propriety refer to a memorandum relative to restraint, furnished by Mrs. Bowden (late Miss Powell), the matron of the Hanwell Lunatic Asylum: "it comprehends forty-one cases, almost all of which were in *constant* restraint of some kind or other previous to September, 1839. Fourteen of these cases were almost always fastened in restraint chairs, and twenty were almost always in a kind of strait waistcoat, called sleeves: several were in complicated restraints, and some in a chair, and at the same time in sleeves, or the muff, or in leg-locks. All these patients were liberated before the end of September, 1839. Not one of them has been in restraint since. Thirty-seven are yet in the asylum, and there is not one who may not be pointed out as an instance of the improvement of the mental faculties, or of the habits, in consequence of never being subjected to restraints during two years. Some who were considered dangerous at all times are now occasionally seen at the work-table, smiling and pointing out what they have done. Some who were sinking into dementia or imbecility are now lively and talkative. Some who were said to pursue visitors through the ward are now never known to do so." ("British and Foreign Review," vol. xiii, p. 280.)

It is a great point to induce patients to keep up self-respect; a harsh and tyrannical keeper may soon do irreparable injury to sensitive and irritable persons; their mental power and vigour fail, they become prostrated by such treatment.

The physician should always be placid and dignified; his conduct regulates that of the attendants; and the conversation and actions of the patient himself much depend upon his observation of what transpires around him. It is rarely advisable to allow a patient to speak of his delusion; it is far better to converse with him, when not in a state of excitement, upon general subjects, but always with



composure. Contradiction can do no good, and a kind and conciliatory manner should always be exhibited towards the insane; the delusive opinions they hold, however absurd, are to them realities; and a greater degree of irritation is produced by laughing at them than we should ourselves feel if our word were doubted, or we were jeered at by others. A conciliatory disposition, with a manner sufficiently authoritative, is the great desideratum.

It is considered advisable, that, whenever a person's means will at all admit of his being treated at home, this is always preferable, and especially in the first instance: for to send an incipient or slight case to mingle with lunatics, or persons holding deluded opinions, is very likely to aggravate and confirm those symptoms already present, or even by imitation to cause him to assume those fictitious ideas or characters which are so powerfully and so perpetually impressed upon him.

As there must be lunatic asylums, and as the majority of them are unfortunately densely thronged, the importance of classification cannot be overestimated. And it is not sufficient to separate the rich from the poor, the noisy from the quiet, the dirty and offensive from those who are clean, or to keep the dangerous either separately or by themselves, or to remove the paralysed and imbecile from convalescents, but the convalescents themselves require classification; and who presumes for one moment that a patient recovering from erroneous ideas and perceptions is more likely to be favourably impressed by another convalescent, than by those of sound mind?—as Dr. Conolly says—“Convalescents should not even associate with convalescents, except under the strict watching of persons of sound mind; they can hardly assist, and they may retard, the recovery of one another.” How powerful is the effect produced on those who habitually associate with the insane; how many keepers, both male and female, become insane!

Restraint is justifiable where the property or life of the patient or of others is endangered; his holding fictitious ideas, however foolish, does not demand restraint; but the instant such ideas really threaten danger to himself or to others, that moment strict surveillance is necessary. By this I do not mean that the mere possibility of danger demands such strict interference, because, if so, where is the lunatic who would not be under restraint? But what I do mean is this, immediately a patient thought it his duty to “send a child to heaven”; that he had “a mission from above to take away life,” or in any other manner showed that his hallucination was dangerous, then the utmost precaution is essential. Many lives might have been saved by attending to these precautions; the moment a man even thinks of taking his own life or that of another, vigilant superintendence should always be at hand.

It is important to ascertain whether a man has been, and continues to be, dangerous to himself or others; and if so, and more especially if it be a chronic case, confinement may be necessary. Even here I think it very undesirable that a patient should be confined for more than two or three months, without a special inquiry being made into his case; and if, according to the provisions of Lord Ashley's Act, the Commissioners act fully up to their instructions, it must have the effect of preventing many of the errors and abuses which have prevailed.

It is quite evident, on reading the last report made by the Commissioners, how great a difference of treatment exists in the various County lunatic asylums: thus a suicidal patient in one County would be allowed considerable liberty, under proper surveillance, while if placed in another County asylum he might be hobbled and chained and treated worse than a felon.

It is now a matter of fact that chains and bars increase the frenzy of maniacs, and often tempt the insane to commit suicide. Pinel, who first denounced and abandoned the restraint system, found the number of furious maniacs diminish immediately the chains and manacles were abandoned.

In the summer of 1842, upwards of nineteen tons weight of iron bars and gates were removed from the Lancaster County Lunatic Asylum; and

what has been the consequence? The gloominess has been dispelled, and attempts at self-destruction have been much less frequent.

In the Commissioners' Report we find “that the diminution of restraint in the treatment of lunatics has not only lessened the sufferings, but has improved the general health and condition, of the insane.”

It is far better to control a patient by encouraging him when tranquil, and soothing him when irritable; the object should be to induce him to place confidence in his attendants and in himself, to do nothing which diminishes his self-respect; and the authority obtained in such a manner is greater and more permanent than when resulting from hobbles and buckles and straps and strait-waistcoats. Coercion is always unjustifiable, and where a patient is very violent, he should be placed in a padded room, where he cannot injure himself; and if necessary one or more assistants must remain with him during the height of a paroxysm. It is true that where the system of restraint is abandoned, there must be a greater number of superintendents; but owing to the improved moral discipline, and the better classification, the extra number required is not so great as may at first be thought necessary. At Hanwell there is about one attendant to eighteen patients; and they are instructed to show great forbearance, never to argue with patients, and above all things never to hesitate, but to act promptly, and especially that they are placed there not to punish, but to prevent mischief.

To show the practicability, and also the advantages, of the conciliatory system, it is only necessary to refer to the Report of the Commissioners, made April, 1846, on visiting the Hanwell Lunatic Asylum, which then contained 413 males and 568 females: total, 981. Of these, none were under mechanical coercion, and only two persons, females, were under seclusion. This, of itself, speaks volumes, and supplants all theories.

A person may hold very extravagant opinions, and yet discharge public and domestic duties with propriety; but a man having once suffered from mental hallucination or aberration, while in the army or navy, should be considered incapacitated from any such future service, because, as such persons necessarily have to be intrusted with arms of destruction, as each holds a situation of trust, varying of course greatly as to responsibility, and as relapses not unfrequently occur, and as the greatest danger might result from any sudden attack, it is considered most impolitic to run any such risk. Only a short time since, we remember the Cove of Cork to have been placed in the greatest danger by the commander of one of her Majesty's ships having, while insane, ordered the guns to be loaded, and pointed at the town; happily mischief was prevented by the promptitude of one of the lieutenants. It is, perhaps, hardly right at present to refer to the great danger which might have resulted to our troops in India, by an officer, who, under a temporary fit of insanity, ordered the artillery and cavalry to the rear; and, finally, to retreat upon Ferozepore, thereby depriving the infantry of their support, and also preventing them from so fully following up the advantages they had subsequently gained. Although this error did not lead to any serious result, yet it is almost impossible to conceive how perilous might have been the situation of the infantry, had they not found themselves intrenched within the enemy's camp. Such a case as this strongly points out the necessity of the rule which has just been laid down, with respect to an attack of insanity necessarily disqualifying for any future military or naval duty. Insanity is not very prevalent in the service, which strongly tends to prove the advantages of discipline, because, if the habits of regularity as to drill and regimental orders did not strongly antagonize and oppose the injurious effects of debauchery and revelry, we should reasonably anticipate a greater accession to the number of lunatics.

As we consider it would be inexpedient and improper ever to readmit into the service for actual duty any one who had been insane, so we also hold that any person who has committed a serious crime, and who has been acquitted on the ground of in-

sanity, should be confined for life. In either instance there may be a relapse, and danger would almost necessarily result.

Early treatment is of the greatest importance; a few days neglected, and the case may be irremediable; whereas, had attention been at once directed, and proper remedial and general means adopted, such a person might, in a short time, be again fitted for his usual avocation, and possibly be never so again afflicted throughout life. To send such cases to a lunatic asylum is not to be recommended; where persons can afford it, they should be visited by their ordinary medical man, who can, should he think it necessary, avail himself not only of judicious and experienced nurses or attendants, but also of the opinion and advice of physicians who have devoted considerable attention to this particular subject; but in the case of poor persons, or parish paupers, they should either be attended at their own houses by the parish doctor, or a special room should be set apart as an infirmary in the workhouse—a great object, however, being never to designate it by a term which might prejudice the recovery or the feelings of those who occupied it; consequently it should never be called the madward, or the lunatic-house; and it would be much more discreet in medical men, when speaking to non-professional persons, to call such cases, those of preternatural excitement or morbid irritability, or cases of inflammation of the brain: the fact being that many persons never regain their social position when once said to have been insane; whereas, where excitement has depended upon inflammation, the evil or injurious tendency is scarcely remembered after the patient has convalesced.

To show how important early treatment is, turn to the deplorable condition of the insane in North and South Wales, where the unfortunate pauper lunatics are shamefully neglected. In North Wales there is not a single public or private asylum, the lunatics being imperfectly and badly boarded out, their worst cases being sent to the Liverpool Asylum, the governor of which states “that he never remembers an instance of recovery in an insane pauper from Wales.”

It is to be strongly advised that those friends who have justly placed a lunatic in an asylum, should be the persons selected and allowed to liberate them, because, although a convalescent may feel gratitude to those who had considered it necessary to have him taken care of, yet sometimes there is a very decided antipathy manifested towards them, and this, too, notwithstanding a perfect restoration to mental vigour.

Great caution is often necessary in discharging a patient, when presumed to be cured; and the utmost care and precaution should be taken where danger of any sort has been threatened. Many persons have committed suicide who were considered convalescent, but who merely simulated convalescence to have the opportunity of destroying themselves.

A young man in the Bicêtre was by Pinel considered cured, and the commissary, after a most lengthened examination, pronounced him sane, and ordered his discharge. The patient, however, had to give his signature, and subscribed himself as “Jesus Christ,” and then sustained that delusion.

Another much more remarkable and more important case occurred in Paris, in the person of another of the patients in the Bicêtre, who, when liberated by the mob during the Revolution, pleaded his cause so pathetically and rationally that he almost brought down the vengeance of the armed rabble on the governor of the asylum, whom he had accused of cruelty. The rescued patient was led about in triumph amidst the shouts of “*Vive la République!*” The whole scene was too much for the unfortunate lunatic; he seized a sword, and wounded his liberators indiscriminately, and was then, by them, again taken to the Bicêtre, when the mob acknowledged their misconduct, and the injustice of those suspicions which had arisen from their ignorance.

So we also read of a medical man in this country, who had left a patient, relenting, as he rode along, that restraint had been proposed, and resolving to postpone it; before, however, he had gone half a mile, a mounted messenger informed him that his tranquil patient had nearly blown up his house



and family with gunpowder. But, probably, one of the most dreadful recent instances is that of the enthusiast Thom, alias Sir William Courtenay. This man had been previously found insane, and had been confined for six months, but, being considered cured, was released; he put himself at the head of a band of riotous fanatics, in the neighbourhood of Canterbury, and was himself shot, whilst in actual collision with the military, but not before ten other lives had been sacrificed.

The enormities which were formerly all but universally practised in the treatment of the insane, throughout this country, cannot now be so common, still much reformation is required. It is to be hoped we shall never again hear of such a case as that of Mrs. Hawley, who was released by Lord Mansfield, having been brought before him by a writ of *habeas corpus*. It appears she was inveigled into a madhouse at Chelsea, and there kept and treated with severity; without the use of pen or paper, or any communication with her friends; and even when a physician was ordered to visit her by the Lord Chancellor, and applied at the house where she was supposed to have been taken, he was refused admittance, and was told no such person was there, although at the very time he saw Mrs. Hawley at one of the windows, and subsequently spoke to her!!

This was by no means a rare case, and a husband who found his wife in the way, or a parent wishing to dispose of a child who was troublesome, had nothing more to do than to go to a madhouse, and these relatives or friends were immediately admitted, without any other warrant or authority than the mere application!

It was not unusual for persons keeping madhouses to live away from them, and to leave the management to persons ill adapted for so responsible an office—such, for instance, as one engaged in the "wool trade"; indeed it was just such a superintendent who, when asked by a committee of the House of Commons upon what authority he admitted persons charged with drunkenness into a lunatic asylum, replied, "upon the authority of the persons who brought them."

One husband justified to Dr. Battie his sending his wife, though sane, to a lunatic asylum, that he understood it to be "a house of correction."

How many such instances have there been, as of a husband locking up his wife for life, or perhaps until a son has come of age and released his mother; of families keeping in confinement brothers or sisters for the sake of their property; means having in some instances been adopted to prevent their recovery!! How disappointed has a husband been on the unexpected recovery of his wife; or how much vexation has it caused a mother to see her only son restored to reason!

And even where there has not been such villainy and such criminality, yet ignorance and superstition have sometimes prevented indiscreet parents from allowing their children to be subjected to any treatment whatever, although labouring under phrenetic insanity; and this because they considered "the aberration was from the Lord," or was the result of "demoniacal possession."

Mr. Bakewell says—"I have known a son take measures evidently for the purpose of preventing the recovery of his father from insanity. I have known a large opulent family combine together in the use of means which they thought the most likely to prevent the recovery of a brother who had acquired a large property by his own exertions: they living at this moment in possession of his property, and he taken care of at a trifling expense. I know a female of fashion and fortune, who has pertinaciously withheld the means of recovery from an elder sister, on account of the expense, though the sufferer's own income is more than sufficient to procure the best means the country affords; but she finds it necessary to make use of part of her unfortunate sister's income to support her own fashionable style of living. I know another opulent family who have kept a brother in confinement for upwards of seven years, without any means of recovery, though they themselves believe he would have recovered had proper means been timely resorted to; but the undis-

turbed possession of his property is, evidently enough, their only object. There is now living, at a short distance from this place, a poor object of a female, who, for bed and accommodation, is often in a worse state than the swine are suffered to remain in, at the same place; she has been in this situation twelve years. (P. 12, Bakewell "On Mental Derangement.") For information on this subject, read the Report of the Select Committee of the House of Commons, respecting the filth and horrors of the York Lunatic Asylum, and also of Bethlehem Hospital, pp. 11, 12, &c. See also "Quarterly Review," pp. 405, 406, vol. xv., 1816; Parliamentary Report on Madhouses, May 25, 1815; also, "Edinburgh Review," vol. xxviii., 1817, pp. 431, 471.

In the Parliamentary Minutes, Mr. Higgins, after describing several instances of ill treatment, states—"Another case, which I laid before the governors, was that of the Rev. Mr. ———; he was a clergyman reduced to indigence, I believe, in consequence of his mental complaint; he had at times, and for considerable periods, intervals of reason. In those intervals, when he was perfectly capable of understanding everything that was done to him, repeatedly, in the presence of his wife, he was exposed to personal indignity, and on one occasion he was inhumanly kicked down stairs by the keepers, and told in the presence of his wife, that he was looked upon as no better than a dog. His person swarmed with vermin; and, to complete this poor man's misery, the keepers insulted his wife with indecent ribaldry, in order to deter her from visiting him in his unfortunate situation." And it subsequently appeared that he had a gold watch which was lost there, and which his wife could never recover.

An equally affecting case is that of an unfortunate lady who had been a teacher of languages, who talked reasonably and was fully sensible of the mental and bodily condition of those wretched beings, who, without clothing, were closely chained to the same wall with herself. But, probably, the most complicated and most shameful apparatus for manaculating a patient was exhibited in that of William Norris, who was linked and double linked by various parts of the body.

It is perfectly distressing to read the account of the brutal and degrading treatment to which patients were subjected in the public and private establishments, even up to a very recent period. In some instances we read of patients having been compelled to wallow in their own filth from Saturday night till Monday morning; the air they inhaled being so bad that persons unused to it could not breathe.

In the Report of the Commissioners will be seen how dreadful, how offensive, was the atmosphere in which some of these poor creatures lived—"their cribs were reeking with filth and urine," "the straw filthy," or "the floor wet with urine." In some cases there was even "no glazing to the window," and some of the cells had "no window, and no place for light or air, except a grate over the doors." There were also dungeons of which even the keepers themselves were ashamed, where the ordure and filth were perfectly horrible; these cells were concealed, and were never exposed even to the eyes of persons visiting by authority; and in one instance would not have been detected, had not a magistrate declared he would break open the door if the key could not be found; the distressing and disgusting scene on entering surpasses description.

We read, in 1827, of an unfortunate woman who was confined as a lunatic, and was declared by the visiting magistrate, and by Dr. Bright, not to be insane: on her husband being thus informed, he said, "She was a troublesome woman and not fit to be at large; there she shall remain."

How many persons, now in lunatic asylums, would delight in being restored to their relations, and yet their affections are allowed to pine, their very existence is painful to them—they are miserable; whereas, were they permitted to return to the comforts of home, no mischief would result, they would again become happy, and their lives would be prolonged.

An information was laid in the King's Bench against a physician for assaulting and beating an

alderman, on the ground of his being a lunatic; and for imprisoning him until he procured him to execute a letter of attorney to his wife, under colour of which he disposed of £1,000, apparently to his own use. It appeared, moreover, that he had debauched the wife, handcuffed the husband, given him strong medicine in the night, and carried him out at one or two o'clock in the morning bare-headed, when it rained.

The physician was sentenced to stand in the pillory, be sent to the house of correction in Southwark, whipped naked, kept at hard labour for a year, pay a fine of £600, and find sureties for his good behaviour during life. (P. 509, Collinson, vol. i.)

Dr. Conolly has mentioned the case of a man of weak mind, who appears to have been in his wife's way, and who, by tormenting his life out, managed to excite him and make him worse. He had already been confined in lunatic houses three or four times, and when Dr. Conolly saw him, it was for the purpose of signing a certificate which was then lying on the table; but with that humanity which has ever characterized him, he refused the certificate, and said, he at that moment considered the wife the madder of the two—she having then partaken of more gin than usual. Dr. Conolly feared this unfortunate man was subsequently removed to a lunatic establishment.

The treatment in lunatic asylums is daily becoming more rational, and those who should command our warmest and kindest sympathies are not now so likely to be treated worse than brutes. Public attention is being more vigilantly directed towards the abuses which have existed, and an extended and intimate knowledge of former evils will be more likely to enable wise precautions to be taken to prevent the repetition of such enormities.

(To be continued.)

#### CASE OF INTRODUCTION OF A WOODEN PENCIL INTO THE BLADDER OF A WOMAN, AND ITS REMOVAL BY THE LITHOTRITE.

By M. A. BOUCHARDAT, Surgeon-in-Chief to the Hospital of Lyons.

Etiennette Blain, aged forty, short in stature, of a strong constitution and sanguine temperament. This woman, who has always enjoyed good health, complains of pains in the hypogastrium, and frequent desire to pass her urine, which has caused her entrance into the Hôtel Dieu of Lyons. When admitted under the care of M. Barrier, it was ascertained that she had introduced a pencil into the bladder, with the view, as she said, of relieving violent colic, which nothing else could assuage. We may suppose, from her avowal mixed with denials, that this pencil escaped from her hands while performing the manipulations of onanism. The presence of a foreign body in the bladder immediately produced pain, of a slight character when at rest, or when lying on the back, aggravated by her work, or when walking, and finally becoming excessively severe. At her entrance into the hospital, on the 18th of September, she complained of the hypogastric pains before described, of frequent desire to micturate, of shiverings, alternating with heat; the urine was thick and turbid, the skin hot, and the pulse accelerated.

On the next day, this state continuing, M. Barrier passed the female sound, ascertained the presence of the foreign body in the bladder, and decided on immediately attempting its extraction. The patient was placed on an elevated bed, the thighs were separated and flexed on the pelvis, and an injection of warm water thrown up before renewing the examination with the "trilabe" of M. Civiale. The attempt to extract the foreign body, which was placed transversely behind the pubes, was vain; it was not more successful with a long and curved pair of polypus forceps, with the lithotrite of Heurteloup, and other analogous instruments, each being assisted by the introduction of the finger into the vagina. The foreign body, situated obliquely from behind forwards, and from left to right, was seized very frequently,



but constantly escaped from the grasp of the instrument.

M. Barrier and myself ascertained successively the position of the pencil in the bladder; we endeavoured, without success, to remove it by seizing it by one of its extremities, but we were always opposed by an insurmountable obstacle to its extraction. During three various trials, we ascertained that the lithotrite of Civiale, which quickly emptied the bladder, would not seize the foreign body, but pinched the mucous membrane of the bladder; the polypus forceps closed upon the mucous membrane of the urethra, and brought away with them small shreds of the mucous membrane. The "*lithotrite à percussion*" caught the foreign body with facility, brought it to the vesical orifice of the urethra, without being able to disengage it, on account of its transverse position. The patient was carried to bed.

Sept. 18. She has suffered much from the attempts of yesterday; the hypogastric pains are augmented; there is frequent micturition; the urine thick, muco-purulent, and mixed with some clots of blood. M. Barrier, going out of town for a few days, left her in my charge. I renewed the attempts at extraction, after having thrown an injection of warm water into the bladder. I was not more successful than my colleague in using the same means and instruments, to which I added the long curved forceps, used for extraction of foreign bodies from the œsophagus. I then decided to try a *manœuvre*, which appeared theoretically to be likely to be successful, and by which I eventually succeeded in the removal. Introducing a small infantile lithotrite into the bladder, I ascertained the presence of the pencil; I seized and held it fixed behind and beneath the pubes, ascertaining its transverse position and the impossibility of advantageously modifying it. Confiding this to the care of an assistant, who held it steady, I glided along it another similar instrument into the bladder, with which I seized the pencil at a point to the right of that at which the former had grasped it; removing the first instrument, I ascertained by vaginal examination that I was near to the extremity of the body, situated at the left of the bladder (on my right). Nevertheless, it was not at the extremity which caused the obstruction. I then introduced a second time the same lithotrite, for the purpose of seizing the pencil as near as possible to its point, on the right of that which remained in the bladder; again examining by the vagina, I found that the teeth of the lithotrite had grasped the left extremity of the foreign body, which scarcely projected in the bladder; I then withdrew the second-introduced instrument, then the last, which brought out the foreign body, with it. It was a reddish, unvarnished, cylindrical, common pencil, of ten centimètres length and eight millimètres diameter, formed of two unequal parts glued together. These two pieces separated immediately after extraction. One end was cut, the point broken, the lead forming a slight projection on the other end, with two notches. The pencil itself was covered near its end by a yellow layer of urinary deposit. The patient walked to her bed delighted with the result of the operation.

I prescribed a hip-bath; cataplasms to the hypogastrum; linseed tea as common drink, and a sedative draught.

19. No fever; the patient has slept well; frequent desire of micturition; turbid urine. Hip-baths, oily enemata, frictions of the hypogastrum, with camphorated oil, with morphine, linseed ptisan; injections of the bladder with decoctions of mallow and poppies.

20 to 24. The treatment continued; the nourishment gradually increased; the patient has risen, walked about, and the appetite and sleep have returned; the urine is not passed above four times in the day, and has become clear.

24. A catheter introduced into the bladder does not cause the slightest pain, and draws off a limpid urine. The patient was now discharged.

The plan followed in the case above detailed depends in principle on the possibility of passing

instruments through the female urethra, which, when united, are larger than the ordinary catheter; it is not, therefore, applicable to the same circumstance in man, on account of the differences in length, diameter, and dilatability of the male urethra. The theoretical distinction between the modes of operation in the male and female must, therefore, be evident.

I have found the great advantage of using two lithotrites in fixing the foreign body, and searching for its point, or, to speak more exactly, one of its extremities, with much greater certainty than when one only is employed. With the finger introduced into the vagina, the point at which the lithotrite has seized the foreign body, its transverse or oblique position, and the distance of the point grasped by the instrument from the orifice of the bladder, are easily ascertained. As soon as we are certain that the instrument is near one of the extremities, the blades are closed, the other instrument used to fix the foreign body removed, and, finally, that which has grasped the extremity. A little lateral motion may be used, such as that of the midwifery forceps, with advantage.

In the plan which I have described and followed, the instruments were introduced three times: the two first were without success; the last brought away the pencil. If a similar case should happen, I should simply change the position of the two instruments in the bladder; it would be easy to disengage the first lithotrite, to grasp again the foreign body with it on the right or left, until the most convenient point for removal without injury was seized, and to disengage the second instrument.

I propose to apply the plan of using two lithotrites in this manner for the extraction of all long and rigid foreign bodies, for the removal of which the introduction of a single instrument is found insufficient. We may, perhaps, sometimes succeed with the forceps with three branches of MM. Bianchetti and Spella, which are more applicable to soft and flexible bodies, or with the lithotrite alone; but, by combining two lithotrites in the manner I have described, we proceed rationally on certain mechanical principles; and we shall obtain in similar circumstances, no unforeseen obstacles intervening, as certain a result as in any of the regular surgical operations.—*Gaz. Méd.*, Nov. 21.

#### A FEW REMARKS ON THE USES OF A NEW MATERIAL, CALLED THE IMPERMEABLE PILINE.

By ALFRED MARKWICK,

Surgeon to the Western German Dispensary, and formerly Externe to the Venerel Hospital, Paris, &c.

In a paper on "Moist Heat as a Therapeutic Agent," published in the *Medical Times* for November 14, I pointed out the advantages of the "Impermeable Spongio Piline" as a medium for applying warm fluids to the surface of the body. I now propose to introduce to the notice of the profession another equally valuable material, which will be found admirably adapted for the different and various purposes for which it is intended. I allude to the "Impermeable Piline," a beautifully soft waterproof woollen fabric, from which several articles calculated to be extremely useful in numerous cases may be made.

The "Impermeable Piline" may be used either in the dry state, or moistened in the manner to be hereafter mentioned.

As a dry application it will be found extremely available in various diseases. In rheumatism it has proved eminently successful in affording, in several instances where I have tried it, very speedy and effectual relief. Nor will it, I apprehend, judging from one case in which I have used it, be less useful in gout. For gangreena senilis it appears to me to be admirably adapted, and, indeed, far superior to the cotton wadding that is now commonly resorted to in this affection; the material intended for this purpose being somewhat thicker than what

is manufactured for ordinary use. It is also well calculated for promoting either a local or a general diaphoresis: it stimulates the vessels of the skin, and, by relaxing the surface, opens the constricted mouths of the perspiratory tubes. As an auxiliary, therefore, to the various sordid remedies we have at our command, many of which have a tendency to act on the urinary organs, unless proper caution be taken to keep the surface of the body warm, it will be of very great importance. By enveloping the body in it, either with or without a wicker frame work intervening, and then passing beneath it by means of a metallic tube, on the principle of Dr. Gower's sudatorium, a stream of hot air, a most profuse perspiration may be obtained in a very short space of time; indeed, much more quickly than with blankets. A vapour-bath may also be given in the same way, and with this advantage, that the bed clothes will be kept perfectly dry. In exciting a return of the cutaneous exhalation from parts where it has become suppressed, it is likewise exceedingly efficacious.

From what has been already said of its properties, I think we may fairly conclude that it will also prove a very valuable adjunct to our ordinary means of resuscitation in cases of drowning. The object here being to restore warmth and animation as quickly as possible, it is evident that the more effectually the temperature of the hot blankets, the bags of heated sand, and of the bottles of hot water, &c., as well as the caloric that may be communicated from them to the body, can be prevented from being carried off by the surrounding atmosphere, the more speedy will be the effects they are required to produce. All that requires to be done in these cases is, to surround the asphyxiated person with the "piline" after he has been previously enveloped in the warm blankets, and has had the heated materials above alluded to applied along the course of the spine and to the extremities. Hot air may likewise be had recourse to with advantage, in the manner already recommended.

Several other instances of the usefulness of this material, in the dry state, might be adduced; but those just mentioned will, I am sure, be sufficient to enable my readers to supply them. I will, however, make a few remarks on it when used in the moistened form; that is, as a vehicle for stimulating liniments.

Wetted with strong compound camphor liniment, I have found it an admirable means of producing counter-irritation, or even a blister. Hence, as a speedy remedy in various internal inflammatory affections, particularly of the chest and abdomen, and in many diseases of the joints, it will be very valuable. I have known a blister to be produced in this manner in the short space of five minutes; and, when we consider that, almost from the very moment of its application, its stimulating action commences, and that the epispastic result is obtained without any injurious effect upon the urinary organs, such as stranguary for instance, we can but feel convinced of its importance as a therapeutic remedy, if not of its superiority, in many cases, over the common blister ointment or the acetum cantharidis. Considering, therefore, the various uses to which this material may be applied, and the numerous cases in which it may be advantageously had recourse to, there can be no doubt, I think, of its proving of great value to the profession. I might have brought forward several instances in confirmation of my statements respecting it, but I have preferred confining myself to the simple narration of facts, feeling convinced they will be verified by all who may be disposed to test the truth of my assertions.

19, Langham-place.

OBITUARY.—Nov. 22, at Springbank-cottage, Strathaven, G. Hamilton, Esq., M.D., late surgeon in her Majesty's 72nd Regiment. Nov. 22, at Newcastle, I. Raines, Esq., M.D., of Burton Pitsed in Holderness.



## HOSPITAL REPORTS.

## MEDICAL TIMES PRIZE REPORTS.

THIRD SERIES.

Reported by WILLIAM ANDERSON, Esq., Student at St. George's Hospital.

## SURGICAL CASES.

(Continued from p. 149.)

## HERNIA.

The protrusion of any of the abdominal viscera from their proper cavity into a sac formed for them by the peritoneum, which is pushed before them, is the most common species of hernia that we meet with, though the protrusion of any viscus from its proper cavity is comprised equally under the same name. Hernia may be divided into three kinds—reducible, irreducible, and strangulated. Reducible hernia is that in which the intestine is capable of being returned into the abdominal cavity, though the sac may have contracted adhesions, by its external surface, to the surrounding tissues. An irreducible hernia is that in which the sac has not only contracted adhesions to the surrounding tissues by its external surface, but the intestine has also contracted adhesions to the interior of the sac, thereby rendering reduction impossible. A strangulated hernia is one which may eventually become reducible, but which, for the time being, is incapable of being so, from a stricture being made on the prolapsed part of the gut by the aperture through which it passes, and which requires an operation to divide the stricture, if all other attempts to reduce it fail. There may be some rare instances, where the constitution is strong enough to go through all the stages of strangulation, subsequent inflammation, and sphacelation; the sphacelated portion of intestine being voided through an abscess in the abdominal parietes, and an artificial anus being formed. Few persons can go through all this; whereas, when the operation is performed in good time, very many are saved by it. There are various kinds of hernia, but the most common are the inguinal and femoral. Inguinal hernia is of two kinds—oblique and direct. Oblique inguinal hernia follows the exact course of the inguinal canal. The intestine first passes through the internal abdominal ring, pushing before it a pouch of peritoneum, which constitutes the hernial sac. It then distends the infundibuliform process of the transversalis fascia, in which fascia the internal abdominal ring is situated, about midway between the spine of the pubis and the anterior superior spinous process of the ilium, and about an inch above Poupart's ligament. From the circumference of this ring is given off the infundibuliform process, which surrounds the testicle and spermatic cord, forming the fascia propria of the latter, and constituting the first investment of the hernial sac. The intestine now passes beneath the arched border of the transversalis, and then the lower border of the internal oblique; it here receives another covering from the cremaster muscle, and then arrives at the aponeurosis of the external oblique, in which is situated the external abdominal ring, through which aperture it passes and receives as its covering the intercolumnar fascia. The coverings of an oblique inguinal hernia, therefore, are—the peritoneal sac, infundibuliform process of fascia transversalis, cremaster muscle, intercolumnar fascia, superficial fascia, and integument. The spermatic canal, serving in the male for the passage of the cord, and in the female for that of the round ligament, is about an inch and a half in length; it is bounded in front by the aponeurosis of the external oblique, behind by the fascia transversalis and conjoint tendon of the internal oblique and transversalis, above by the arched borders of the transversalis and internal oblique, and below by the grooved border of Poupart's ligament; and at each extremity by one of the abdominal rings. The epigastric artery lies on the inner side of the neck of the sac, or internal abdominal ring. In direct inguinal hernia, the in-

testine forces its way through the conjoint tendon of the internal oblique and transversalis, just behind the external abdominal ring; the conjoint tendon may, however, be pushed before the intestine, instead of having it burst through it. In this variety of hernia there is no connection with the cord, consequently it has not the cremaster muscle for one of its coverings, which are otherwise the same as in oblique inguinal hernia. The epigastric artery runs externally to the neck of the sac, and the spermatic cord generally lies on its outer side; whereas in the other it is most frequently found behind it. If we always met with the exact symptoms, and found that diseases ran the same courses which are described in books, the study of our profession would be rendered comparatively easy; but this is not the case: we seldom meet with any thoroughly well-defined cases, they are almost invariably complicated; and there are certainly no surgical cases to which this remark applies more strongly than to hernia. The first case which I have selected to illustrate this subject is that of Charles Wridgway (case 1). This was a case of oblique inguinal hernia, of six years' standing, which had become strangulated. He was admitted with all the usual symptoms of strangulated hernia; he had been bled largely, and the taxis tried without avail before his admission. The warm bath and the application of ice were employed, but unsuccessfully; and the operation was performed, the symptoms of strangulation having existed for twenty-four hours. There are certain rules laid down in books with regard to the position of parts in these cases; but here we find a great deviation from such rules, and the case is rather a singular one: the vas deferens was anterior to the tumour, and the spermatic artery was posterior to it. The stricture was exceedingly tight, but it was divided, and the gut, having regained its natural colour, was returned; the omentum, having contracted adhesions, could not be returned, and was, therefore, left as it was found. The symptoms of strangulation were relieved, but he was attacked afterwards with peritonitis, which frequently follows, and but too often terminates in a fatal result. This man's pulse was small, sharp, and wiry—one which warrants and requires depletion, and not that weak, thread-like pulse, which utterly forbids it. He was bled, and the effect proves the above-mentioned fact: the pulse rose and became full, soft, and easily compressible, and the pain was relieved. The same evening his pulse relapsed into its former state, and the pain increased; he was again bled, and with the same happy result; the peritonitis was now checked, and he eventually recovered. With regard to the application of cold in this case, it is a well-known fact that the incarceration in many of these cases depends either upon an accumulation of air or feces in the hernia; cold will often cause the bowel to act on the matter contained in it, or will lessen the volume of air; it will make the scrotum corrugate and the cremaster contract; and will often, by producing such effects, serve to reduce the hernia without any further means. There is a variety of the oblique inguinal hernia, called the congenital, and so called, because in almost all cases it occurs at or soon after birth; a portion of bowel or omentum descends with the testicle, and passes with it into the tunica vaginalis, which consequently forms the hernial sac. This species of hernia, though it usually happens soon after birth, is not always peculiar to that period of life; it has been known to occur in adults, and last year I saw a case of this kind in a patient fifty-four years old. This case was complicated with hydrocele, and previous to his admission he had been tapped for the latter, and was then advised to go into the hospital, as there was a rupture remaining. No doubt, in this case, the fluctuation of the fluid, the tenseness of the tumour, and the difficulty of distinguishing the testicle, led to the mistake, no symptoms of strangulation having then appeared. The trocar, however, instead of passing into the covering of a common hydrocele, would in such a case pass into

a hernial sac, this being formed by the tunica vaginalis. This man had only had hernia for six years, and it was of that kind which is scarcely ever seen except in early infancy; yet there is no reason why there should not be an occasional malformation about this part of the human frame, or why the communication between the tunica vaginalis and abdomen should not continue open in the adult subject, rendering him liable to a protrusion of the bowel into this part, on the operation of the usual exciting causes of hernia; in fact, such communication has been found in the adult without any protrusion. In inguinal hernia, the bowel protrudes above Poupart's ligament; in femoral, always below it. The hernia first protrudes through the crural ring, which is bounded externally by the femoral vein, internally by Gimbernat's ligament, behind by the os pubis, and in front by Poupart's ligament. The hernia then passes behind the falciform process of the fascia lata, it next passes through the saphenic opening of the same fascia, and then, as it increases in size, it turns up over the falciform process, and is placed on the anterior surface of Poupart's ligament, and does not descend on the thigh. It is of the greatest importance to recollect this circumstance in using the taxis: for the direction which the hernia takes is downwards, forwards, and then upwards; the taxis, therefore, must be applied in exactly the reverse order. The coverings of this hernia, from within outwards, are—peritoneal sac, septum crurale, fascia propria, cribriform fascia, superficial fascia, integument. This kind of hernia is more common in females than in males, on account of the greater breadth of the female pelvis, and the larger size of the femoral arch. When this hernia becomes strangulated, the symptoms which arise are much more severe than those which occur in inguinal hernia, and this arises from the denser and more unyielding nature of the parts which surround the neck of the sac. The case of Harriett Barwick (case 2) well illustrates this subject; the hernia came down at six P.M., this was very soon followed by vomiting, and at eight P.M., she was admitted with all the symptoms of strangulated femoral hernia. All attempts to reduce the hernia failed, and at twelve P.M., the operation was performed; the stricture was divided, and the gut returned without difficulty. The symptoms were relieved, and in this fortunate case the wound healed by the first intention, and within a very short time she was enabled to leave the hospital.

Mary Sears (case 3) was admitted on the 27th of January, with strangulated femoral hernia, the gut having been strangulated since the 21st. Constipation and vomiting had lasted all this time, therefore the operation was at once determined on and performed; the stricture was divided, and the gut returned easily. In this case, though the gut had been strangulated for six days, it was only slightly discoloured, whereas in many cases it would have been in a state of sphacelation. A short time after the operation, it was discovered that there was a great deal of oozing from the wound, and it was necessary to apply pressure for a considerable time to stop it. It seemed, however, from her account, that she was of a hemorrhagic disposition, which would account for this secondary hemorrhage. The bowels acted after the operation, and she seemed to go on well till the next evening, when she complained of pain in the bowels, and at half-past nine P.M., died. On examining the body after death, there was scarcely anything to be found which could account for that event; but from her having been in very bad health, and in a very weak state, it might be supposed that her death was caused by the check which her nervous system had received by the operation. As I have stated before, a hernia, though it may become strangulated, does not in all cases require an operation; and we have a good example of this in Mary Holyman (case four), where the symptoms of strangulation had existed for twenty-six hours: she had been bled, and the taxis applied ineffectually, previous to her admission; she was put into a warm bath, and, on



her becoming faint, the hernia was easily reduced. The two next cases, though fatal in their termination, are very interesting, and well illustrate this dangerous malady. Louisa Delisle (case 5) was admitted with symptoms of strangulated hernia, and, all attempts to reduce it having failed, the operation was had recourse to. The stricture was exceedingly tight, but it was divided, and the gut returned; there was some fear that a portion of the omentum, contained within the sac, would slough, and accordingly, a ligature having been applied round it, it was removed. This poor creature was a governess, and unfortunately became acquainted with a scoundrel of a Frenchman, who married her for the sake of the little property she possessed; he sold all she possessed, and deserted her, leaving her without the means of procuring even the common necessities of life. The want of proper nourishment, and the distress of mind which such an event would cause, must necessarily have rendered her very unfit to undergo an operation, and, therefore, the fatal result could not be wondered at. She was attacked with peritonitis, but of a very different kind to that which occurred in Charles Wridgeway; it was of that low kind which is so difficult to treat and so often fatal, and in which general bloodletting is totally inadmissible. Mary Ann Wescott (case 6) was admitted at the same time as the last-mentioned patient; she also was a weak subject, and ill fitted to undergo an operation; this, however, was absolutely necessary, and it was therefore performed. It was extremely difficult in this case to return the gut when the stricture was dilated—first, on account of the part of the gut which had been strangulated; and secondly, on account of the omentum being adherent both to the sac and the gut. Mr. Lawrence has remarked, that a hernia of this kind cannot be reduced; and, though this was reduced at the time of the operation, it was soon dragged down again into its old situation by the omentum, and was there found after death, showing that, though this kind of hernia may be reduced, it is almost, if not totally, impossible to prevent it from coming down again, which renders it almost the same kind of thing as an irreducible hernia. This patient was attacked with low peritonitis, and died much in the same manner as Louisa Delisle. In cases of strangulated hernia, it is always necessary to examine all the weak points at which a hernia is likely to occur, and the necessity for so doing is well shown in the case of Anne Dudley: she, like the other patients mentioned above, was admitted with all the symptoms of strangulated hernia; and all that could be discovered was a large umbilical hernia, which could easily be returned, but immediately protruded again. The symptoms of strangulation had existed for seven days, and there was great prostration of strength, with a rapid, weak pulse, and constant stercoraceous vomiting. All the apertures were carefully examined, and, no other hernia being found, the tumour at the umbilicus was cut down upon, but no strangulation was discovered in this place. She died, and then the mystery was solved: a small knuckle of intestine was found to have passed through the right femoral ring, and had there become strangulated; it was in a state of sphacelation, and must have been so when she was admitted; and this, from rendering it flaccid by allowing the escape of its contents, prevented the discovery being made before her death.

## REVIEWS.

*A Practical Treatise on the Diseases Peculiar to Women.* By SAMUEL ASHWELL, M.D., &c. Highley, London. Second edition.

The second edition of this work has just made its appearance. The great merits of the production—and really great merits they are too—are, that it is large without being distended; that its language is plain without being abrupt or affected; and that its whole burden is to point a practice rather

than adorn a theory. All honour to such works as these. *Palmar qui meruit ferat.* Ay, though for a brief season the chaplet be woven for the brow of the most visionary, and men be thrust into the rear in the ratio of their practical utility, the time is not far distant when the line will be found turned, and the rear and the van changed places. We do not wish to deny the merits of “Young Physic” *in toto*—very far from it—indeed, we readily admit that many noble minds are of its number, that may some day do “the state some service”; but, inasmuch as we hold that all the pen-and-ink chemists together are not worth half a laboratory man, so do we maintain that a whole university of study doctors are not to the profession they should exalt, the science they should cultivate, or the humanity they should benefit, worth the umbrella of the educated attendant at the bedside. What have we got from the former?—doctrines of a day. What from the latter?—great facts for all days. And so do we welcome this book right heartily: it teems with what we may term cultivated experience. If it take any views different from what we have formerly maintained, it has good right to do so, because it comes of a source that would venture nothing in idleness or speculation—that has already achieved too much eminence to hazard *prima facie*.

But to come to the book. System (the want of which makes so many otherwise worthy books valueless) is not the least commendable feature of it. It is divided into two parts: the first comprehending functional, the second organic, diseases; and these again are subdivided into chapters according to a very natural arrangement. We may open the book at hazard to show our author. We have done so at chapter iii., part I.

### “ON VICARIOUS MENSTRUATION.”

“**DEFINITION.**—A discharge, generally of blood, from other parts than the uterus, superseding menstruation, and, in its return, occasionally observing a menstrual period.

“**History and Symptoms.**—This vicarious discharge can scarcely be regarded as a disease, when the hemorrhage does not really derange and exhaust the system. Dr. Locock calls it a curious freak of nature. I think he is right in doing so: for the process, in most instances, equally wants the regularity of a healthy function, and the injurious influence of a disease. It is an event entirely out of the ordinary course: for, although it is scarcely ever met with except in connection with amenorrhœa, still, by far the greater number of instances of this latter malady are unaccompanied by vicarious discharge. Generally, it occurs in the unmarried, at least my observation warrants this conclusion; but quite as often in the weak and delicate as in the robust. When married women are its subjects, conception rarely takes place during its continuance; although an interesting case, in which pregnancy more than once suspended the vicarious discharge, is recorded by Dr. Davis. Sterility, depending principally on torpor of the organic system of nerves, may likewise be further ensured by the amenorrhœal state of the uterine lining membrane incapacitating it for the formation of the decidua. The vicarious discharge is usually blood, but it may consist in an excess of the natural mucus of the genital organs, constituting leucorrhœa. Some portion of the pulmonary and intestinal mucous tissues are thought to be the more common seats of the vicarious loss; but certain it is that the nipples, the ears, the gums, the umbilicus, the bladder, the axilla, any part of the skin or the mucous membranes, or the surface of an open ulcer, may occasionally by gush, but more usually by slow transudation, for several days furnish the vicarious blood. In the regularity of its periodical return it seldom resembles the healthy function, although cases are recorded where the menstrual epoch has been exactly observed.

“It has been assumed, but without sufficient proof, that, before furnishing the vicarious discharge, the part must be in a disordered, irritable, or weak condition; but it has been frequently observed that, so far from structural change taking place in the vicarious organ, even its functional

disturbance is generally slight, and the amount of subsequent constitutional disorder is only proportionate to the blood lost. When the nipples or mammae are the seat of the hemorrhage, there is often the formation of a crust over the affected spot, which being thrown off, the bleeding occurs.

“The time during which vicarious menstruation may continue to be repeated is very uncertain. I have admitted patients into Guy’s, expecting its reappearance, and, after keeping them in the ward for many weeks, have been completely disappointed, the amenorrhœa persisting, and the vicarious flow not returning. Local pain, constitutional irritability, and hysteria, are often premonitory of its periodical approach; and in a patient, who was subsequently a nurse in the hospital, the surface and edges of a large menstrual ulcer on the thigh were invariably more painful, hot, and swollen, prior to its furnishing the vicarious evacuation. There are cases on record, by Churchill and Siebold, where excessive salivation has supplied the place of the catamenia. Such an instance I have never seen.”

Passing over causes, diagnosis, and prognosis, we come to

“**Treatment.**—The extent to which remedies may be employed must be determined by the amount of the hemorrhage, the effects of the loss, and the warning of its approach. If the process has been repeated frequently, and there are premonitory symptoms, emmenagogues may be used, if there be no plethora or congestion. If, however, there is engorgement of the uterus, cupping on the sacrum or loins, leeches to the os uteri, vulva, or anus, must precede the use of any stimulants. A smart drastic purgative may not only prevent the vicarious attack, but also induce menstruation; and I have several times, after preliminary depletion, witnessed the good effects of electricity, and the strong mustard hip-bath at a high temperature.

“If the hemorrhage, having come on suddenly and without any previous indication, is moderate, interference is unnecessary, the advantages of healthy menstruation being partly secured by it. But if, on the contrary, a large quantity of blood is lost, and from an organ important to life, then similar measures must be adopted as in hemorrhage, not vicarious. The infusion of roses, with nitrate of potass, dilute acid and digitalis, cubebs and bismuth, the acetate of lead, ergot, turpentine, and opium (vide formulæ), may be exhibited.

“In the intervals, the treatment must be directed to the removal of the amenorrhœa: tonics, and especially iron, ought to be given. A residence at Tunbridge Wells, Malvern, Buxton, or Matlock, or by the seaside, is often decidedly advantageous.”

In the second part of the work, under “Simple ulceration of the cervix and os uteri,” we have the following judicious treatment recommended:—

“**Treatment.**—This will, of course, be determined by the stage and severity of the affection. If the patient has been so early examined as to induce the belief that, although ulceration does not exist, it may yet occur, venesection may in some instances be advised. Local depletion, however, will be indispensable; and the blood may be abstracted by cupping from the loins or about the sacrum, or by leeches to the perineum and vulva, the effect being increased by the hip-bath. In all such instances, excepting the cervix is exceedingly painful on pressure, or so enlarged, tense, red, and shining as to lead to the conviction that an abscess is about to burst, leeches directly applied to it, or scarifications as heretofore recommended, are far more efficient. A few weeks since, I saw a case where matter had formed, the cervix being enormously enlarged, hot, and indurated. I had previously wished to scarify, but, after keeping the patient in the slipper-bath at 100 deg. for nearly an hour, I punctured the most projecting part, and more than a table-spoonful of pus escaped. There was rather extensive subsequent ulceration, but the healing was rapid and quite satisfactory. An injury from a pewter injecting syringe was the cause of suppuration.



"Whether local bleeding be practised or not, the recumbent posture, hip-bath of salt water, or medicated with poppy and conium, should be diligently used. Mild aperients, a spare diet, and sexual abstinence must be enjoined. Where the ulceration is slight, astringents, or three or four drachms of the oxide of zinc, in six ounces of distilled water, used as an injection three or four times daily, will often cure. Various ointments may be recommended, and mercurial cerates have healed many ulcerations when there was no syphilitic taint. It will be inferred, from what I have already said in the chapter on Cancer, that I fully concur in the great utility of cauterizing these diseased surfaces.

"M. Lisfranc, generally so daring, seems inconsistently timid about the application of caustic. He regards 'engorgement' of the uterus, and inflammation of the vagina or cervix, as events sufficiently important to forbid its use: the very affections which I have cured by cauterization, when other remedies have entirely failed.

"M. Lisfranc, with equal want of judgment, prohibits it where there is subsequent pain; while, with more reason, he thinks that its application should be interdicted for four or five days before and after menstruation. The *protonitrate of mercury* has succeeded better in his hands than any other caustic. Jobert employs the *pernitrate*, and Delpech the *acid nitrate of mercury*. After a careful examination of remedies and their effects, I find none more efficient than the *common lunar caustic*, of varying strength and accurately applied; the general health, and especially the condition of the bowels, require attention.

"Several times within my knowledge, the happiness of married life has been seriously interfered with by the pain 'in coitu' consequent on slight or more severe ulceration of the cervix. Such instances are, for manifest reasons, long neglected; nor is it till the evil becomes really almost intolerable that an examination is permitted. Sometimes the cervix is only abraded, its mucous surface being so irritable and tender that every repetition of intercourse brings with it a repetition of the abrasion, bleeding, and pain. Practitioners will, I know, recognise in this brief allusion, the facts of similar cases of their own, long neglected, because not thoroughly examined. Many of these I have healed by frequent and slight cauterization with the nitrate of silver, and in some of them the cure has been attended by immediate restoration of the sexual feeling, which had been long entirely absent. In a case of this kind, where the lady came from a foreign country to England for advice, the whole disease consisted of a pustular ulceration, the invariable and immediate consequence of intercourse. The harmony of the parties had been destroyed, and the utmost incredulity evinced when I stated that there would be but little difficulty in the cure. The recumbent posture, the *lunar caustic*, and *oxide of zinc*, with sarsaparilla and good diet, effected permanent improvement; and when I last heard of the patient, then living in Hungary, she was perfectly well, and about to be confined.

"Far more frequently than is generally supposed, painful intercourse, and eventually sterility and broken health, are dependent on acute and chronic inflammation and congestion of the cervix. Such cases from time to time fall under my care; and, though most of them are curable by proper treatment, often have I to regret that a delicacy of feeling, which can hardly be too much commended, and a want of a due appreciation of its importance by the attendant practitioner, have together prevented that examination, without which the cause of the malady remains unknown, and the only effective treatment neglected. Not unfrequently do such evils continue for years, till disappointed hopes of cure induce a permission properly to investigate the disease. I trust that the suggestions now made will be sufficient, and that I shall, for manifest reasons, be excused for not dwelling at greater length on a class of cases avowedly not uncommon, and exceedingly important."

It is impossible to do justice to such a book by

quotation, however lengthy, or wherever selected; suffice it, then, that those who want a clear digest of uterine derangements and diseases, to serve as a guide-book in practice, must become its possessor.

*Medical Report of the House of Recovery and Fever Hospital, Cork-street, Dublin, from 1st of January, 1844, to 31st of December, 1845.* By GEORGE A. KENNEDY, M.D. Dublin, 1846. 8vo., pp. 52.

This is a very interesting assemblage of cases, drawn up with much care, and discussed in their pathological bearings with a nice discrimination and judgment. Dr. Kennedy has acquitted himself most excellently of his task, and produced, within the compass of a pamphlet, what cannot fail to be both attractive and useful to the professional reader.

The following case of fever and delirium, the result of mental emotion, is very curious:—

"J. N., aged twenty-six, chimney-sweep, left his house in the morning, in perfect health, to assist in sweeping chimneys at Beggar's-bush Barrack. While engaged at his work, he was in the act of falling from the roof of a high building, when he saved himself by clinging to a spout, from which he remained suspended until his strength was well-nigh exhausted before assistance arrived. On his return home, about two o'clock, he appeared quite well, detailed to his family with perfect calmness all the circumstances connected with the accident, but continued to recur frequently, during the course of the evening, to the 'providential escape' he had had from death. The following morning he was admitted in high fever, with violent delirium. He lived twenty-eight days, having become completely paralysed for some time before his death. The delirium continued from the time of his admission till a short time before he died, when consciousness returned for a little, and he recognised his wife. The disease, in the suddenness of its onset, and in the course of its progress, exhibited some features of delirium tremens; but, on inquiry, it was ascertained that he had always been a man of remarkably temperate habits." (P. 19.)

In connection with the subject of delirium tremens, our author remarks—

"Dr. Cless, of Wurtemberg, has called the attention of practitioners to the remarkable and, according to him, truly specific effect of digitalis in this disease. Of thirteen patients labouring under this affection, and treated by the infusion of digitalis, two only proved unsuccessful. It would appear from the accounts, that the favourable results were owing to the narcotic effects of the remedy." (P. 19.) Dr. Kennedy has not been able to confirm these observations by his own experience, having never administered digitalis alone in delirium tremens. For ourselves, judging of the pathology of this disease, and the treatment usually most successful in it, we should seriously doubt the propriety of treating it with digitalis alone, or even in combination with other medicines. What narcotic power it possesses is very feeble, and very likely the result of its sedative action—an action by which it is chiefly known to us. The infusion is particularly characterized thus; and how it can be beneficial where stimulants and opiates are, for the most part indicated, is to us a mystery.

We have much pleasure in recommending Dr. Kennedy's excellent pamphlet to our readers.

*The First of a Series of Lectures on the Actual Condition of the Metropolitan Graveyards.* By G. A. WALKER, Surgeon, &c. &c.

This is another of the pamphlets of the indefatigable Mr. Walker, with the old purpose. The lecture is full of important facts, given lucidly, and accompanied with an earnestness of good feeling that must command respect.

APOTHECARIES' HALL.—Gentlemen admitted members Nov. 26:—Thomas Beswick Purchas, Alfred Brooks, Arthur Priest, and Thomas James Sturt.

## TRANSACTIONS OF LEARNED SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Nov. 11.

Dr. T. WATSON in the Chair.

The Chairman apologised for the absence of Dr. Chambers on the first meeting for the session; the names of several gentlemen were then read as candidates for the fellowship of the society.

*Two remarkable Cases of Encephaloid Disease of the Heart, with Observations.* By Mr. Prescott Hewett, Lecturer on Anatomy at St. George's Hospital Medical School.

CASE 1.—B. R., aged forty, was admitted into St. George's Hospital, in May, 1846, with a large tumour, apparently of a carcinomatous nature, connected with the back part of the left foot. The disease had existed about a year, and had lately been rapidly increasing in size. With the exception of the tumour, the patient appeared to be in a good state of health: there was no dyspnoea, no oedema—in fact, no symptoms of visceral disease. Ten days after admission the leg was removed. The tumour appeared to be of an encephaloid nature, and had apparently begun in the os calcis. Six days after the operation, the patient died with symptoms of secondary inflammation of the pleura. At the examination of the body marks of extensive recent inflammation were observed about the left pleura and pericardium. The right cavities of the heart were much dilated, with hypertrophy of the walls of the left. In the right auricle was a large growth, which, proceeding from the appendix, occupied the greater part of the cavity of the auricle, and, passing through the auriculo-ventricular opening, projected some distance into the ventricle. When cut into, this tumour presented a highly vascular appearance, and in structure resembled exactly the encephaloid disease of the foot, for which the patient's leg had been removed. The valves were healthy in structure. No carcinomatous disease was found in any other part of the body. Some pus existed in one of the veins of the stump.

CASE 2.—M. H—, aged fifty-nine, was admitted into St. George's Hospital, Dec. 10, 1845, with a tumour of the breast, apparently of an encephaloid nature, and some enlargement of the absorbent glands. The countenance was anæmic and of a yellowish colour, but the patient was cheerful, and presented no symptoms of disease, beyond that of the breast. A red blush of an erysipelatous character existed in the skin covering the breast, and extended to some distance. Under existing circumstances it was deemed advisable not to meddle with the disease. The tumour gradually increased in size, and ultimately the skin broke, giving passage to a large fungous growth. Some six weeks after her admission into the hospital, she was one day seized with urgent dyspnoea and partial syncope, and died on the following day. No symptoms of disease had existed about the chest up to the day preceding her death.

At the examination of the body the tumour proved to be of an encephaloid nature; the disease had spread up to the glands of the axilla. A small encephaloid tumour was also found in the left rectus abdominis. The cavities of both pleuræ contained a quantity of clear serum; the lungs were healthy; the heart was enlarged by dilatation of its cavities, the dilatation of the left auricle being more marked than that of the other cavities; the mitral valve was slightly contracted, and there was some thickening of its tendinous cords. The auricular surface of this valve was extensively covered with a soft deposit, which, to the naked eye, presented all the characters of encephaloid disease; the opening of the valve was all but closed, there being merely an aperture the size of a quill for the passage of the blood. The semilunar valves were slightly thickened. The abdominal viscera were healthy; no oedema about the extremities.

The portions of the diseased structure, both of the breast and the heart, which were examined by the microscope, presented large nucleated but no caudate cells.

The author, after stating that both these cases presented rare powers of carcinomatous disease



about the heart, called the attention of the society more particularly to the second case, in which was a well-marked specimen of encephaloid disease of the free surface of the endocardium, an affection rarely met with; so rarely that Dr. Walshe in his treatise on cancer alluded only to one case, which was of a doubtful nature.

After a quotation from Roskittansky, who states that encephaloid deposit does sometimes occur about the valves of the heart, the author called attention to the curious fact of the patient in the first case having undergone a most severe operation, without ever evincing any symptoms of the extensive disease which existed about the heart.

Dr. Golding Bird inquired if any examination had been made before the operation to ascertain the condition of the viscera.

Mr. Hewett said that no examination had taken place, because no signs of disease in the chest were apparent.

Dr. Watson said it was best in all cases to examine the chest, although no suspicion of disease there might exist.

Mr. Lloyd said that at St. Bartholomew's Hospital, the chest, in such cases, was always examined.

*Case of Peritonitis with Purulent Effusion, Spontaneous Evacuation of Pus through the Abdominal Parieties; Recovery.* By C. S. B. Aldis, M.D., Physician to the London and Surrey Dispensaries.

The subject of this case was a little girl, aged seven, whom the author saw for the first time on June 5. At this time the abdomen was greatly distended, with umbilical protrusion and fluctuation. A small swelling, with thick parietes, was observed between the margin of the ribs and the umbilicus on the right side. It was reported that eleven weeks previously, the child had been attacked with chilliness, followed by heat and vomiting, with pain in the belly, feverish symptoms, and delirium. The tumefaction of the abdomen first appeared in about four weeks.

After a careful examination of the abdomen, no enlargement of any of the viscera could be perceived. The motions never contained any purulent matter. From the history of the case, and the present symptoms, the author believed it to be one of peritonitis with effusion; the swelling above mentioned being an effort of nature to evacuate the effused fluid. On the 8th of June, about five quarts of pus escaped through a perforation of the abdomen occurring naturally in the swelling. After this the abdomen was uniform in appearance; no tumour nor remains of a cyst could be traced. The discharge continued more or less until the 31st of July, when it had nearly ceased. The author lost sight of the case until the 14th of September, when he found she was in perfect health. A cicatrix had formed where the discharge issued.

The author concluded by remarking, that the case was interesting from the unusual occurrence in children of such a termination of peritoneal inflammation. Dr. Lee had informed him, that he had met with several cases of puerperal peritonitis terminating as the above, but has never met with a similar instance in children.

Dr. Watson observed, that purulent matter, the result of peritonitis, was uncommon, whether in relation to children or adults.

Dr. Alderson doubted whether the case was peritonitis, as he could not find in the report the symptoms usually attending peritonitis.

Dr. Aldis had not seen the case till eleven weeks after peritonitis existed; he could not give a more particular account of it than he had done in the report. There was tenderness on pressure, and vomiting, swelling of the entire abdomen, and fluctuation. Five medical gentlemen had seen the case, and regarded it as one of peritonitis. Dr. Lee had seen and even met with three instances of collection of matter, the result of puerperal peritonitis.

*Case of Traumatic Paraplegia, with the post-mortem Examination.* By S. Solly, F.R.S., Senior Assistant Surgeon to St. Thomas's Hospital.

In this case paraplegia resulted from injury to the spinal cord, caused by fracture of the fifth

cervical vertebra. Death occurred forty-eight hours after receipt of injury.

Mr. Solly brought forward the case as interesting in a physiological rather than in a practical point of view, and particularly as being against some recent arguments tending to show that the anterior and posterior column of the cord do not perform the same office as the roots of the nerves connected with them.

The symptoms were those of complete loss of motion, while the sensibility of the skin was at first much exalted, though it became natural before death. The author drew attention to the incessant vomiting from which the patient suffered, and which he seemed disposed to attribute to irritation of the sympathetic nerve by the rough surface of the fractured body of the vertebrae, as shown in the *post-mortem* examination. The examination was performed eighteen hours after death, the weather being cool, and showing there was sanguineous effusion into the muscles at the lower and posterior part of the neck, and fracture of the fifth cervical vertebra, extending through the arch on the right side, and thence through the body of the bone, also on the right of mesial line the fractured edge of the body presented a rough surface forward into the neck, and was in contact with some branches of the sympathetic nerve, which were red and stained with blood. The intervertebral cartilage was torn and separated between the fifth and sixth cervical vertebrae. The joint was open between their articulating processes, so that there had been a complete dislocation of thirteen bones of the spine above and below. On examination of the cord there was no lesion perceptible to the sight; but by placing the knife carefully across its anterior surface, and carrying it from above to below, it sank in between the fourth and fifth cervical nerves, showing that the cord was softened at this part. Posteriorly there was no alteration in the surface, which was uniformly firm. A transverse section did not exhibit any change in the colour of the medullary portion. The cineritious was of a deeper and rather redder colour than natural. In texture there was a great change in the anterior half of the antero-lateral columns, these being quite soft and pulpy. All between the posterior lateral groove and the posterior mesial groove was firm and elastic, like the rest of the cord. A small portion of the posterior third of the antero-lateral column was also firm; but there was not a distinct line of demarcation between the soft and normal parts of the cord. This alteration in texture did not extend more than a quarter of an inch in the longitudinal direction of the cord. Above and below this point the cord was uniformly firm and normal. The brain was perfectly healthy and firm throughout. A short discussion followed, chiefly on the bearing of the case; and Mr. Shaw made the following observations in reference to the question of the functions of the posterior columns of the spinal marrow; that two cases had been recently published in the "Transactions of the Society," where the facts were opposed to the conclusion of Mr. Solly—that these columns bestow sensation. In one published by Mr. Stanley, the patient, having lost the power of motion, retained sensibility, and yet after death the posterior columns were found disorganized by disease. In the other the symptoms were the same, and upon dissection Dr. Todd found the posterior columns destroyed by softening. Mr. Shaw considered that in the examination of this question sufficient attention had not been paid to the exact mode in which the anterior and posterior roots came off from the spinal marrow, or to the assistance which may be obtained by comparing the origin of the fifth cerebral nerve with that of the spinal nerve. In regard to the first point, the anterior roots in the spinal nerves arise by numerous fine radicles from the very surface of the anterior column, thus apparently showing that the part of the cord from which they derive the power of motion is situated superficially. The posterior roots, on the contrary, dip bodily into the interspaces between the posterior lateral and posterior columns, and they reach a deep part of the organ before they subdivide to form any perceptible connection with the cord; in that the mode of origin of the posterior roots is quite differ-

ent to that of the anterior, and from their passing so deeply into the interior it may be inferred that the part of the cord which bestows sensibility is situated deeply. These views throw light on a fact which must have been frequently observed in cases of disease or injury on the spinal marrow—namely, that the power of motion is commonly lost before sensation; the explanation of which seems to be that the morbid action affects the columns of motion situated superficially, before it can reach those of sensation placed more deeply in the cord. In regard to the proofs which may be drawn as to the exact columns of the spinal marrow which confer sensation, from tracing their roots of the fifth cerebral nerve to their origins, some dissections described by Sir Chas. Bell, in his latter papers to the Royal Society, seem to be of peculiar interest. The fifth nerve resembles the spinal nerves in having two roots—one of which bestows motion, and the other sensation: it arises at the base of the brain from the side of the pons varolii, apparently at a very remote distance from the spinal marrow. It is well known, however, to anatomists that the larger root, proved to be that which confers sensation, has its real origin from a point which may be considered the commencement of the spinal marrow. On following the thin, flat, ribbon-like band of medullary matter, which forms the proper cut downwards through the medulla oblongata, Sir Charles Bell was satisfied that it did not pass in the direction of the posterior column of the spinal marrow, and that it had no connection with that column; he observed that it took a more lateral course, and disappeared in a track which he regarded as the continuation of the posterior lateral column. From the same column he found the posterior roots of the spinal nerves arising, and he consequently inferred that it is the posterior lateral column, and not the posterior, which is the source of sensibility in the cord.

MEDICAL SOCIETY OF KING'S COLLEGE, LONDON.—Nov. 19.

Dr. RAYNER, Vice-President, in the chair.

Mr. Henry H. Salter, in accordance with the rules of the society, read some selections from his paper on "The nature and causes of the various deposits that are formed within or upon the valves of the Heart, and the symptoms which indicate the existence of such morbid alterations"; for which the "Dean's Prize" was awarded at the close of the last session. He enumerated six kinds of Valvular deposits:—1. Fatty degeneration; 2. Cartilaginous; 3. Osseous; 4. Warty vegetations; 5. Melanosis; 6. Strumous tubercle: to each of which a separate section of his paper was devoted. He found that the cartilaginous deposit, which occurs in the arteries and in the cardiac valves, presents frequently an evident fibrous structure, and is always destitute of the ordinary cartilage cells; and that the osseous deposit is deficient of the Haversian canals, lacunæ, and canaliculi of true bone, or any structure analogous to them. His paper, illustrated with numerous most accurate and highly-wrought drawings, is placed in the library of the society.

Mr. Pittard stated that, having spent a good deal of time in investigating the diseases of the blood-vessels, he was able to corroborate Mr. Salter's observations as to the absence of true osseous structure in the earthy deposits which occur in the arteries, and of cartilage cells in the so-called cartilaginous formations; he had not, however, observed, most probably he had overlooked, the fibrous structure of the latter. He had found reason to believe that there are two very different kinds of earthy deposits in the arteries: one is found in connection with fatty and cheesy deposit, of which it is, no doubt, an ulterior condition, is very friable, and affects a rounded or nodulated form; the other occurs unconnected with any other deposit, is more compact and strong in consistence, and assumes the form of scales. The latter he had always found accompanied by aneurisms, the former only occasionally so. But the most singular fact in the structure of the latter is, that there is a very small hole in the centre of each scale, around which



the earthy matter is arranged concentrically for some distance. He regarded these holes as the habitations of parasites, and the reasons which had led him to entertain this hypothesis he had stated in a paper read before the society in 1844 or 1845. He had lost the opportunity of seeing the parasites, if such existed, by drying all his specimens before he was led to suspect them by discovering the holes in question. The scale-like, osseous deposit was somewhat rare, and he had not met with it since observing this fact; and therefore he mentioned the notion of parasites as at present merely a hypothesis to be disproved or proved. He had been permitted by the author to read one of the unsuccessful essays, and to examine the specimens accompanying it. In this essay two new valvular deposits were mentioned as having been found by the author: one, a deposit, or rather an effusion, of blood in the valve, in a case of sea scurvy; the other, a good-sized parasite,—a strongylus (one of the specimens), apparently a strongylus armatus. The strongylus armatus is a parasite found hitherto only in the mesenteric arteries of the horse and ass, where it causes aneurisms.

Mr. Arlidge stated that he witnessed the post-mortem examination, in which the parasite in question was found in the tricuspid valve, there was a similar one in the broad uterine ligament of the same subject.

#### TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

Mr. Henry Smith (of Finsbury-circus) wishes to call attention to the disgraceful manner in which reports of railway accidents, admitted into Guy's Hospital, appear in the "Times" and other journals. The names of some of the menials of the institution appear as house-surgeons, &c., and not from the stupidity of the reporter, but, as Mr. Smith is told on the highest authority, because the reporter has the account (!!!) given to him by certain menials to copy for insertion, and for obvious purposes. But the most disgraceful part of the business is the endeavouring to conceal the name of the eminent gentleman who has most of the railway cases under his superintendence—Mr. Edward Cook—who has for many years been one of the surgeons of Guy's Hospital. Every scheme is resorted to to prevent Mr. Cook's name from appearing in the papers, and, even when inserted, it is invariably spelt Cox. Only on Friday last an account appeared in the "Times" relative to a man named Galt, who was injured on the Croydon line, on Thursday. The statement was, that "one of his legs was dreadfully crushed, and that Dr. Cox recommended amputation." The truth is that the man, we hear, on the best authority, has not received any injury whatever to his extremities, his arm being, however, injured severely. Mr. Smith wishes to expose this ungentlemanly business, by inserting his letter, which will, he thinks, effectually put a stop to these scandalous tricks and endeavours to annoy one whose eminence in his profession, and whose unremitting attention to his patients, have gained him the esteem of the public in general, and especially of the directors of the Brighton, Croydon, and Dover lines.

Studious.—We think the new rules; but our correspondent should address himself to the secretary.

We regret to say we cannot find room for Dr. Feldmann's vindication of hydropathy.

A. B. is informed that German degrees usually require a residence at a German university; where they do not, they are worthless. We are by no means inclined to encourage illicite graduations.

A Country Student.—We do not think much of the work; but a complete knowledge of it should set our correspondent at his ease in reference to examination.

J. T.'s opinion is medical, and should be submitted, with a fee, to some medical man.

Communications acknowledged.—Mr. Finlay, Rokearny; Dr. Macgrady, Ireland; Mr. Smith, Manchester; Dr. Wade, Belmarket; Dr. Warene, Hull; Dr. Griffin, Kilkee; Dr. B. Davies, Queen's College; Mr. Pearson, Harlton; Dr. Torbeck.

S. writes to us:—"Liebig has asserted, and on the assertion has founded one of his theories, that as we proceed towards the tropics the quantity of oleaginous food taken by the inhabitants proportionately diminishes. This statement was repeated in a lecture delivered the other day by one of the professors at King's College. Now, when a fact is made the basis of a theory, it is necessary to examine it well, and to see that it is indisputable. But in the present case, admitting that the Esquimaux eat tallow candles, it does not follow that this penchant is entirely due to their climate. We find that in England, which is rather a cold country, the inhabitants prefer simple food, and avoid all greasy dishes. In France, butter is more used, but disguised as thick sauce. Further south, in Spain and Italy, the oil appears in its native transparency, without any cloak at all. And, if we proceed to the torrid zone, we find the Hindoos revelling in melted butter (termed ghee), and sometimes after dinner taking an additional portion by itself. Under these circumstances, I think that it is not proved that the use of oleaginous substances is smallest in warm climates."

Medicus is informed that the step he has suggested as the effective one is the one which we shall gladly have recourse to. We have the materials named, except Mr. B.'s letter.

Several gentlemen who have addressed us on the mischief done to the interests of the medical profession, and especially to the "members" of the College of Surgeons, by the proceedings of the Council of the Provincial Association, will pardon us for postponing for the present a notice or insertion of their valued communications.

K. H., F. B., A Student, and A Friend of the Greengrocer, are much thanked for their notes.

## THE MEDICAL TIMES.

SATURDAY, DECEMBER 5, 1846.

"Altius omnem

Expedit prima repetens ab origine famam."—VIRGIL.

OUR space last week did not permit us to give a description, we intended, of the Russian baths. We mentioned them cursorily, but we now furnish our readers with the following minute particulars, the results of the personal experience of a contributor to the "Medical and Physical Journal" (vol. 13, p. 77 et seq.), from the pages of which we condense the communication. The common people are in the habit of going into these baths two days every week. These are called the public bathing days. Here you may see from two to three hundred persons, perfectly naked, without any regard to age or sex. After they have exposed themselves to the above heat (140 deg. Fah.) from ten to thirty minutes, or more, they come

into an open courtyard, in the summer, pour cold water upon their heads and bodies, and in the winter plunge themselves into snow. On their return from the bath, the whole surface of their bodies is of a very florid colour, which does not disappear either on the exposure to atmospheric air, the affusion of cold water, or any other means; but continues for some hours, diminishing in a slow and gradual manner. A much-esteemed friend, Mr. Taunton, of Pater-noster-row, has communicated his experience concerning the baths in Russia.

"June 28, 1803, at three A.M., I went into the bath with my clothes on, heated to 45 deg. of Réaumur's scale, equal to 133 deg. of Fahrenheit; pulse 56. When I had been in twenty-three minutes, it increased to 150, and afterwards became so quick as not to be numbered; profuse perspiration from every part of the body; respiration not much altered; a continued stream of water ran from the mouth and lungs. On going into the air, a slight sickness came on, and continued for some hours, with a little difficulty of breathing; great debility remained during the day, with a sensation of cold; did not sleep at night, though apparently overpowered by it in the afternoon. The perspiration appeared to cease instantly on exposure to the air, which was cool for the season, but a general softness came on the skin after walking about half a mile.

"June 30, 1803. At six P.M. I went into the bath (first taking off my clothes), heated to 55 deg. of Réaumur, equal to 156 deg. of Fah. Pulse 60, rose in ten minutes to 152, and in five minutes more became so quick as not to be numbered. A severe smarting sensation was produced on the skin; respiration not much affected, but rather quicker than natural. Dressed and walked into the air immediately; perspiration appeared checked, but I took no cold, and did not get any sleep during the night."

So much for this part of our subject, in which, as we before said, we have surely given proofs enough, that there is no novelty in the fact that people may be exposed to extremes of temperature (much greater than those adopted by the quack Preissnitz and his fit followers), not only with impunity, but sometimes with benefit.

Galen, as we read, prepared his patients for cold baths, by first putting them into hot; and he tells us that, when in "extreme heat," he has used the cold bath after supper, with manifest advantage, and quiet sleep following it.

In farriery, as recorded by Sir John Floyer, the use of cold water, when the animal is hot, has been known for a century; and the simple plan which our forefathers had for curing a foundered horse, embodies the greater part of the wonderful discovery of Preissnitz.

"Take a foundered horse, within forty-four hours of his being foundered; ride him till he foam and sweat much, then ride him into the water to the saddle skirts, keep him there for an hour, then gallop him to the stable, tie him to the rack, and let him not eat for four hours. Dress him, litter him, and put blankets on him till he sweat, and cool him by degrees."

This practice, in a profession so rude as that



of horse-doctoring, three or four ages ago, so utterly comprises the chief business of the quack Preissnitz, and so utterly anticipates him and his illiterate followers, who would fain impress us with a faith in their *originality*, that we have much pleasure in telling our readers, they will find the quotation at pages 100 and 101 of Sir John Floyer's "History of Cold Bathing, Ancient and Modern," second edition, 1706.

Another marvel that these fellows deal in, is the mystery of wearing a wet shirt, and lying in wet sheets. It is a rule with old women, that damp habiliments are about as dangerous as they are disagreeable. There is some truth in the statement, notwithstanding, that, like all general truths, it is liable to exception. The mop-and-bucket men, however, taking advantage of the well-known illiteracy of mankind at large, gravely assume that the harmlessness of damp clothing was never attested until the time of their great progenitor; and that, in announcing a cure for diseases, he created quite an era in doctoring, by the novelty and hardihood of his practice. That they are illiterate enough to know no better, we fully believe, for the scribbling of even the best of them satisfactorily testifieth threunto; and that they may remain no longer in ignorance, and deceive a credulous public no more, either intentionally or through weak-headedness, we beg to furnish them with the following items of information.

Two centuries and more ago, a noted cure, in Scotland, was performed by dipping the invalid's shirt or shift into cold water, and making him or her wear it until it became dry. Dalyell, in his "Darker Superstitions of Scotland," pp. 85, 86, speaking of the water-cure of the seventeenth century, says—

"The patient drank of the water; he washed in it; or his shirt was cast into the place whence it was taken, that, in being withdrawn, the virtue imparted might operate his cure. A noted empiric engaged to cure Elspeth, the sister of John Thomson, at Corachie, 'and for this effect, callit for hir sark, and desyrit tua of hir nerrest freindis to go with him: lykas Johnne and William Thomsones, hir bretheren, being sent for, past in the nicht seaseone fra Corachie towardis Burley, be the space of twelff myles, and inioynet the twa bretheren nocht to speik ane word all the way, and quhat euir thay hard or saw nawayis to be effrayed: saying, it might be that thai wald heir grit rambling and sic uncouth apparitiones, bot nathing suld annoy thame: and at the furde be-eist Burley, in ane south-rynnng watter, he thair wasche the sark: during the tyme of the quhilk waschine of the sark, thair was ane grit noyse maid be foullis on the hyll—beistis that arrais and flichtered in the water: and coming hame with the sark, pat the samyn upon hir, and cureit hir of hir seikness.'"

Dalzell observes, further—

"John Neill, in Tweedmouth, operated a cure on George Reule, in Foulden, 'be causing his wyfe to wasche his sark in south-rynnng watter, and put the said sark thereftir upon him.' Janet Stewart, going to Bessie Inglis, 'take aff hir sark and hir mutche, and waischit thame in south-rynnand watter, and pat the

sirk wat upon hir at midnycht.' Christian Levingston, at 'Christiane Saidler's desire, take ane sarkis, quhilk scho gat hir, and bad hir dip it in the wall at the bak of the hous, quhilk scho did, and broecht it in againe, quhilk Christiane Saidler pat upon him, wat as it was—being very euill at eis, and gaif him to understand that he wald get his health be this meanis.' " (*Ib.*, p. 86.)

"Clothing in a wet shirt," says Dalyell (p. 87), "may not have been an isolated remedy. Martin names one who, to cure himself of cold, 'walks into the sea up to his middle, with his clothes on, and immediately after goes to bed in his wet clothes; and then, laying the bedclothes over him, procures a sweat which removes the distemper.'"

Dr. Forbes is of opinion (p. 432 of his article) that Preissnitz "cannot be fairly said to have been anticipated in his employment of the wet sheet."

Wet sheet, or wet shirt, of course is all the same as regards the curiosity of its cure; and we leave our readers to judge whether, in the passages above quoted, he have not been anticipated, and most completely, by the untutored people of Scotland, more than two centuries and a half! Later than this, or about one hundred and forty years ago, Sir John Floyer writes—

"In Staffordshire, at Willow-bridge, they have a more bold practice than either the Greeks or Romans used: they go into the water in their shirts, and when they come out, they dress themselves in their wet linen, which they wear all day, and much commend that for closing the pores and keeping themselves cool; and that they do not commonly receive any injury, or catch any cold thereby, I am fully convinced from the experiments I have seen made of it." (*Op. cit.* Dedication.) At p. 101 of his work Sir John Floyer remarks—

"I have been informed that the way of sweating by cold water is practised by our country gentlemen who love horse races, to abate the weight of the rider by sweating. Dip the rider's shirt in cold water, and, after it is put on very wet, lap the person in warm blankets to sweat him violently, and he will after lose a considerable weight—a pound or two."

Dr. Baynard (*vide* postscript to Floyer) speaks frequently, throughout his writings, of people saturating their clothes with cold water, and wearing until dry, as a remedy against most diseases. He tells us that the efficacy of the plan was first discovered by accident, but the success of it was so signal as to lead to its common adoption. At p. 29 we have the history of a gentleman, palsied and rheumatic, who fell off his horse one night into a pond of water, in which he remained a long time, and was a still longer time in his wet clothes, and he was cured in consequence. At p. 42 we have the history of a cure of smallpox by immersion in cold water, and subsequent sitting in a wet shirt, far more astonishing, we opine, than anything that the cold water quackery of this *enlightened age* can furnish. Another case we will relate in Dr. Baynard's own words—

"I was at Chiswick, and sometimes in London, in the time of the great plague in 1665, and I

very well remember that it was the talk of the town that a brewer's servant was seized with it, and, in his delirium, ran into a horsepond, first drank his fill, and then fell fast asleep with his head upon the pond's brink, where he was found in the morning. How long he had been in the pond nobody knew, for it was in the night he went into the water, and had no nurse then with him; but he recovered to a miracle."

At p. 77 he tells us how, at the blanket-mills at Witney, the workmen are continually carrying wet blankets next to their chests, yet they never get cold, and usually live to great ages. At pp. 79, 80, he tells us that at St. Mungah's cold spring, in Yorkshire, the people, as a sort of mortification, not only bathe, "but when they come out put on a wet shirt or smock (this both men and women do), and so walk or ride home, and let their shifts dry upon their backs, but the effect has proved contrary to their expectation: for, when dry and warm, they have found *spicula veneris acuit frigus*."

Many similar passages we could quote from Dr. Baynard, had we space. But there is no need so to do, since, to refer to a later age, everybody knows that a favourite cure for ague, in Lincolnshire, is for the sufferer to wear, once a day, a wet shirt until it dry on his back. A bad resource at the best, but not a suggestion of the quack Preissnitz.

#### ON HOSPITAL APPOINTMENTS.

SOME excitement has been recently produced by the canvass for, and election of, an assistant physician of the Middlesex Hospital. Dr. Latham is the fortunate candidate, having obtained 190 votes and 93 proxies, while his opponent, Dr. Woodfall, had 200 votes and 62 proxies: the majority for Dr. Latham being 21 votes. We perceive that Dr. Woodfall, while returning thanks to the governors for their support, in a letter in the *Times* of Saturday, brings a grave charge of undue influence in the election. We quote the passage—"To the governors at large, as well as to myself, I feel it a duty to state publicly my firm conviction, that the result of the election would have been entirely different, if many of them had not been unduly influenced previously to the declaration of the vacancy." We are not about to take up the cudgels for Dr. Woodfall; and we merely notice the election in order to bring again before the medical public our oft-repeated complaint of the inefficient and absurd manner in which all elections to hospitals and dispensaries are conducted, and the degrading means to which it is necessary to resort, in order to obtain these much-coveted but gratuitous appointments.

Personally unknown to both the candidates; not having entered at all into the merits of either; and knowing Dr. Latham only as lately holding a professorship in the faculty of Arts of University College (we believe of the English language), it may be admitted that our remarks will be unstained by party bias. Undoubtedly, if Dr. Woodfall's charge be based on sufficient grounds, he or any other candidate who might have been proposed would have been dealt with unfairly. But we must take such assertions with



some limitation; as disappointed candidates are frequently tempted to give some such cause for their defeat. We believe that Dr. Woodfall was a candidate at a former election for the same office, and it is certainly galling to have been twice defeated, and this simply by a preponderating influence over the minds of the electors. We say this, because we are intimately acquainted with the routine of such matters, having undergone the ordeal ourselves; and, although successful, we cannot but say that we were ashamed of the means by which the appointment was obtained. What are the means? Who are the electors? And how is the contest usually carried on? These are questions it is now our purpose to answer; and in doing so, the corruption, the manifest unfairness, and gross absurdity of the system which governs our medical charities will be shown.

The chief means used for the purpose of obtaining a medical appointment in England, is *influence*; and happy is the man who, seeking such appointments, is surrounded by many, and active, and influential, and monied friends. It is not of the slightest importance whether the candidate possesses much or little professional knowledge or experience, provided he has obtained the necessary diplomas, and a sufficient stock of laudatory testimonials given to him with the greatest freedom by his quondam teachers and acquaintances: these, in many instances, being really and truly worthless. Armed with such, the candidate starts forward and is believed, upon the strength of them, to be an uncommonly clever and talented person. He then stirs up the energies of his friends, who ask all the governors they meet with for their vote as a personal favour. Or one of the *friends* takes the trouble to perambulate among the governors with the candidate, and the process usually goes on thus:—How do you do Mr. ———? Allow me to introduce to you my friend, Dr. or Mr. ———, who is, I can assure you, a very clever, estimable, gentlemanly man, and to solicit your vote for him at the ensuing election at ——— Hospital. I shall take it as a personal favour if you will do so.—The governor, in reply, says that, having had no previous application for his vote, or knowing nothing of the other candidate, he shall feel great pleasure in complying with his friend's request. Exit doctor and friend well satisfied.

But pitiable is the condition of a man who, having no influential friends, attempts such a canvass. He is repulsed on every side; he meets with the utmost rudeness; he is looked upon in much the same light as the beggar who asks an alms, and instead of being treated as a gentleman, as he ought to be, he is uncivilly shown the door. We would strongly recommend our younger readers never to attempt such a thing, unless they can previously calculate on a certain amount of support.

We now arrive at the question, who are the electors? The question is answered in a few words: those who have subscribed a certain sum annually, or have given some liberal donation to the charity. And it may be asked by these humane gentlemen, why, if we support the institution, are we not to choose the officers?

—Surely those who call the institution into existence, or, when formed, support it, have the right to exercise the authority over its rules, regulations, and appointments! This is a good argument, so far as it goes, and would be deemed sufficient under ordinary circumstances. In the management of a company, of an institution where food alone is distributed to the necessitous—where the management of monetary affairs is concerned—we at once allow the propriety of the claim, because comparatively few men are incompetent on these matters. But when we come to the question of professional capability, more especially in medicine, of which the public at large are most densely ignorant, the circumstances are changed, and we strenuously deny that the public are the fit and proper judges.

The means by which these appointments are obtained are often not so *pure* (!) as those we have already noticed. In many cases, governors have been manufactured for the occasion by the candidates; and here, he who had the longest purse, or chose to throw away the largest sum of money, was sure of the appointment. To the credit of the governors, this abominable system has been, we believe, totally removed by a regulation, requiring that all who vote at an election shall have been governors during the preceding six months. It is clear, from what we have stated above, that professional excellence has no correlative ratio to professional advance in England, so far as our public medical appointments are concerned; these do not, except in comparatively rare instances, enter into the calculations of the voters, who universally give their votes to oblige their friends. We repeat that it would be useless for the most talented professional man, were he even possessed of the combined genius of all his gifted predecessors in this walk of science, to put himself forward as a candidate for an appointment in any one of the metropolitan hospitals, unless well backed by interest. He would assuredly fail; not once or twice, but in every similar enterprise.

Can anything be more more monstrous than this state of things; regard being only had to the mode of appointment. But when we see that medical schools are commonly attached to the metropolitan hospitals; when we find that men so elected, without any regard to their qualifications, become the teachers of the rising generation of medical practitioners throughout the country, we cannot suppress our indignation that so gross a state of mismanagement, which may entail misery on thousands, should be permitted by our Government to exist. We boast of the extension of education; of the increase and spread of knowledge; of the improvement in our institutions, and of our freedom: but it would be well if that freedom were somewhat restricted on certain points, and it does not argue much for the excellence of our institutions that such gross abuses should still continue.

We are now on the eve of great changes: the condition of the poor is forcibly occupying public attention; their wants, their desires, and the improvement of their condition, are forced on

the public mind; and, among the changes which this state of public opinion will induce, we have reason to hope that the present question will not be forgotten. It will not be our fault if it should be overlooked, for it is our determination to recur to the subject when a fitting opportunity shall offer, and we do not doubt that in the end truth and justice will prevail.

Is it not proper, it may naturally be asked, that he who has acquired the largest store of knowledge, and that knowledge of a practical nature, should receive the rewards due to his toil and labour? Is it not just to the poor that they should receive the best and most efficient attendance when suffering from disease? Does not every one of the governors, when succumbing under affliction, obtain for himself the advice of the most talented physician or surgeon he can discover? Why, then, not apply the same principle to the poor in our hospitals, and make the appointments to them depend on the qualifications, and not the *influence*, of the candidate?

We think we have said enough for the present on this subject. We again state that these remarks have no especial reference to the recent candidates for the appointment to the Middlesex Hospital; their experience in that matter will have demonstrated to them the truth of our general observations; and the absence of personal knowledge of either will exonerate us from any party or partial feeling. We heartily wish that the general rule should be established: that canvassing by the candidate or his friends should incapacitate him for the appointment; as this would remove one great evil.

#### WHAT IS COMING?

(From the Court Circular of last week.)

Sir B. Brodie had an interview with Sir George Grey, at the Home-office.

(From the Court Circular of this week.)

Mr. Guthrie had an interview with Sir George Grey, at the Home-office.

#### MEDICAL REFORM.

##### LETTERS

TO THE MEMBERS OF

THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

BY A GENERAL PRACTITIONER.

##### LETTER VI.

GENTLEMEN,—I have displayed to you some portion of the mischief that will fall upon the general practitioners of this country, and upon the interests of medical science throughout the empire, by the enactment of the proposed Registration Bill. Such a scheme, as a simple measure, and independent of other arrangements, must necessarily produce evil. The Scotch graduates, and the fellows of the College of Surgeons, will indeed be respectively benefited, but the general practitioners will be grossly injured. Since the promoter has been foiled in all his previous artifices, by the straightforward honesty of the general practitioners, it is not at all improbable that he devised this means of obtaining a "sweet revenge." The Council of the Provincial Association were ready



tools for the accomplishment of such an honourable enterprise.

I have not yet pointed out to you the bearings of this bill on the Apothecaries' Act. There can be no doubt, however, that it will neutralize the operation of that measure; which, whatever may be its defects, is still the corner-stone of medical legislation, and, in the opinion even of the oracular legislator himself, is the safeguard of the rights of the medical practitioner against the encroachments of quacks and impostors. The decision of the Judges has explained and fortified its provisions. We must be very cautious before we allow any measure to pass the Houses of Legislature that will invalidate so important an enactment. It may suit the object of the schemer to babble about professional liberality, general measures, and sectional jealousies; this kind of rhetoric is too cheap to merit the attention of thinking men. When political integrity becomes a marketable commodity, it has lost all its value. The same individual has cackled as volubly on the other side; and with like result, for no one would believe him.

As members of the College of Surgeons, your position will be degraded by this bill; as licentiates of the Hall, your rights will be placed in jeopardy, and you will not obtain a single counterbalancing advantage in return. It is, therefore, your duty to oppose its enactment, and to withdraw all support from the abettors of so pernicious a scheme. Registration, on the plan recommended, is a mere bubble—a hollow pretence to utility—a legal formula of humbug;—nothing more, excepting, perhaps, an artful prospectus to obtain money under false pretences. It is a new mode of *taxing* your hardly-earned incomes. Sir Robert Peel's Bill was not sufficient, it seems, to grind down the hard-working and badly-paid country surgeon, but another peddling politician—one of ourselves too—must, forsooth, invent a process for wringing from our tenacious grasp the last shilling saved from the voracious maw of the Income-tax Commissioners. If any benefit could result, we might submit with complacency to the taxation; but it is really too presuming to imagine that men may be taxed for the maintenance of a grievous injustice against themselves, and exhibit no discontent. The bill does not even *profess* to confer a benefit upon the profession, except in that vague way in which words are substituted for things; and except, perhaps, to those minds who accept the word "registration" as the "open sesame" of medical regeneration, the golden ring that unveils before them the glories, the wealth, and the enjoyments of the regions of enchantment, as another Fortunatus's wishing-cap—that is to fill their purses by some mysterious conveyance of necromancy, while they are standing by, with their hands dropping by their sides, in sluggish anticipation of the unmerited miracle.

That a general registration would be a useful measure cannot be doubted, but, in order that no injustice shall be perpetrated by its enactment, it must be carried out in concert with other objects more important and beneficial.

If your Council can amuse themselves with the amiable assumption that their proceedings on this question can give satisfaction to their members, or imagine that their labours are honourable to themselves, they must have an enormous stock of credulity and self-love. "Where ignorance is bliss, 'tis folly to be wise": and, under these circumstances, the duty of enlightenment is a very cruel one.

The pert little fly that sate upon the axle of the wheel congratulated himself upon the dust he was raising, and yet he was just as insignificant and helpless in the matter as your Council. It is no

doubt a pleasant thing to dream about enchanted caverns, with walls of jasper and streams of running gold—of the luxurious dainties of a fairy banquet, and the ensnaring loveliness of sylphic charms; but it is a painful revulsion of feeling to awake and find ourselves surrounded with the realities of life—omitted duties, broken engagements, inextricable embarrassments, squandered fortunes, and, above all, a dun at the door. The debt is due, the amount must be paid, and the dun is too keen a man to accept either an instalment or an excuse. After all their self-laudation, this is the terrible reality which your Council must now confront.

Having referred to the Apothecaries' Act, I shall now address myself to a collateral subject—the practice of pharmacy by medical men. This question should be argued, not upon any abstract principles of professional dignity, or considerations of corporate right, but upon the simple and actual ground of public utility. Men may not always agree as to what may be considered either dignified or unbecoming; but every rational man will conclude, that if a particular duty be necessary to a profession, there can be no disgrace in its performance. The subject resolves itself into the single question—Is the practice of pharmacy a necessary duty of the members of our profession? I take it for granted that the general practitioners of this country constitute the profession. The specialists are exceptions, who professedly decline to undertake numerous essential duties, and who are not, consequently, submitted to the same influences that determine the conduct of the great working body.

A letter appeared in this journal last week, from a correspondent styling himself "Candidus," in which an attempt was made to prove that *pharmaceutical practice* should be separated from the practice of medicine. This letter was written in reply to a leader that had previously advocated the union of the two, and it would not have commanded my attention, if it had not anticipated me on a subject which I had previously determined to discuss.

This gentleman starts with a declaration of war against the proposition that *pharmaceutical practice* should continue associated with medical practice; and after considerable irrelevant declamation, which seems to have mystified himself as well as his readers, he concludes with these words: "but I cannot subscribe to your assertion, that *open shop-keeping* does not tend to lower professional character." It is clear that this writer does not understand the difference between *pharmaceutical practice* and *open shop-keeping*; and I submit that, before an individual pretends to lecture the public on any subject, he shall take care to inform himself as to the meaning of the terms he uses. It is enough to be bewildered with a loose, incoherent tirade against conventionalities; far too much to find, after all the toilsome attention devoted to the comprehension of the matter, that your labour has been in vain, and that your counsellor is ignorant of the contents of his brief. "Candidus" must be, indeed, exceedingly candid, even to the sacrifice of the ordinary cunning of uninformed minds, to expose himself with so much self-complacency. We could not, however, expect better from him; as, unquestionably, he is not a general practitioner. Throughout his communication there is an evident want of sympathy, carried even to the extent of insult towards that large class; and, moreover, the following quotation, without further comment, will show how utterly ignorant he is of medical business, and consequently how totally unfit to express an opinion upon this subject:—"Certain I am, from daily experience,

that the sight of a private door is no barrier to their application (the poorer classes), whenever their circumstances require it"!!

This subject, gentlemen, was very ably treated in the Report of the *National Association*, read at their meeting on the 17th of April last; and, as I perfectly agree with the manner in which the question is put, I shall take the liberty of making a quotation. "Seeing that the great body of the profession must dispense their own medicines, the question arises whether it is for the advantage of the profession,"—"whether, in fact, the act of dispensing his own medicine should be a badge of disgrace to the professional man. Surgeons who are members of the Council of the College carry their own surgical appliances in their carriages; why should this be considered less degrading to the pure surgeon, than the preparation of medicines under his own eye by the surgeon in general practice? As medical science advances, the physical sciences become daily more applicable, and the habit of manipulation becomes more essential." "The practitioner, for instance, who has to depend in dangerous diseases upon the action on the system of powerful remedies—as mercury, antimony, opium, claterium, or hydrocyanic acid—will always prescribe with greater confidence when he can secure, by his own superintendence, the purity of his medicines, and accuracy in compounding them. Moreover, in rural districts there are no chemists and druggists." Little can be added to this argument, without diminishing its force. Here, we perceive, the National Association, composed of 4,000 general practitioners, declaring in favour of the union of pharmaceutical practice with medicine—itsself a decisive indication of the wants of the public, and of the inevitable policy of the profession in this country.

It would be far more honourable to the profession, and more useful to the public, if the *purists* themselves were to consent to the general usage of sending out their own medicines, rather than to form those degrading alliances with the druggists against the general practitioner, according to their present custom, or to trust their prescriptions to the hands of individuals of whose skill and honesty they know nothing, and of the purity of whose drugs they could decide nothing, even if they should take the pains to inquire. A physician informed me some time since, that he was summoned to a distant rural district to visit a patient, and, having written his prescription, left it at a druggist's to be compounded. The medicine was sent and taken, and after a few hours the most alarming symptoms, threatening the life of the patient, supervened. The physician was again sent for, and, on making inquiry into the cause of this unexpected result, he found that the tincture digitalis prescribed had been drained from a carboy from which all the spirit had evaporated, and left a fluid extract at the bottom of the vessel. This is one of a thousand instances that might be cited to illustrate the extreme danger of confiding the dispensing of medicines to other hands than those of the prescriber. If, again, each prescriber allies himself with a particular chemist, then an entire revolution of medical affairs must be effected, to the utter ruin of a very large number of general practitioners. That this would be the result of such a change there cannot be a shadow of doubt in the mind of any man who calmly devotes consideration to the subject. In truth, the position is too preposterous to be entertained.

The apothecaries of Ireland are in nearly the same social position as the druggists of this country. They practise, indeed, more daringly, because there



they are amenable to no laws for the suppression of unqualified practice; but, in other respects, they are the druggists of that country. Ireland is eminently, as regards the other countries of Europe, in a state of transition:—classes there, are gradually rising, forming, and consolidating; the instinct of self-preservation is keen, and a lively interest is awakened for the acquisition and maintenance of rights scarcely yet defined by law or usage. The members of the College of Surgeons of Ireland have hitherto been, or affected to be, purists—that is, they have written prescriptions which they have left with the apothecary to compound; but it has been proved that this system is destructive of the interests of Irish surgeons. There is a large poor population in Ireland who cannot afford to pay for medicine and advice to two professional functionaries; yet disease is despotic, and must receive attention: the surgeon being above his office, the apothecary performs his duty, and has now established himself as the medical practitioner of the poorer classes in Ireland.

The mischief was so great, the result so menacing—involving, indeed, the annihilation of the order of surgeons in Ireland—that the Collège of Surgeons passed the following resolution on the 4th of Dec., 1838, in recognition of the right of their members to practise pharmacy; and, coming from such a source, it can be considered as nothing less than a recommendation of the practice:—

“Resolved,—That as it is the opinion of eminent counsel, that nothing in any existing act of Parliament in Ireland can be construed so as to prevent any regularly educated physician or surgeon from supplying his own patients with medicines, ordered by himself, and charging for the same, if he chooses, this College will defend the first of its members or licentiates who may act on said opinion.”

This, gentlemen, is important evidence of the necessity of the general practitioner being the dispenser of his own medicines. He cannot exist unless he is so: the profession itself would be dethroned if it abandoned this support. The condition of society requires it, the welfare of the profession demands it, the practitioner himself virtually subsists by it; the clamour for the abolition of this practice is, therefore, stupid cant, betraying an utter unacquaintance with the constitution and needs of the community, and the relations and functions of a medical practitioner. I have no doubt that some idle brain might devise a dozen schemes to prevent that damage to the interests of the surgeon which the abolition of this custom would produce; but, if such utopian measures be sketched out, I must decline to examine into their merits.

England and Ireland, respectively, supply overpowering evidence of the necessity of the union of pharmaceutical and medical practice; and, with these two great facts to guide us, we may laugh at the sophisms of optimists and rhetoricians.

Now, gentlemen, I have not entered upon this question without intending a special reference to the policy of your Association. Your Council are the advocates of a separation of pharmacy from medicine: as specialists, they practise upon this principle, and would be parties to any measure that would erect into a general law, a custom they now pursue. There can be no doubt about this matter, for I am not inclined to lay more hypocrisy to their charge than their declarations and conduct necessarily demonstrate. The time is come for you to decide on which side you will array yourselves, for the contest will speedily commence in a more decided form than it has ever yet assumed. The just views and extensive infor-

mation on medical interests which have, since the establishment of the National Association, been disseminated through the profession will give a definiteness, a vigour, and an intensity to any future struggle that will try the strength of parties, separate yet more widely the advocates of truth from the patrons of error, and give a deathblow to all false systems and factitious interests. This desirable end, however, cannot be attained, unless you range yourselves under the standard of those who take the experience of the past and the witness of the present for their guide and counsel, and who have declared themselves the unflinching defenders of the interests of the general practitioners, as those interests are now found to be established under the sanction of laws, usages, and public necessities. Such men decline to receive metaphysical axioms, fanciful possibilities, and problematical advantages into their account, but content themselves with deciding on facts—on things as they are—on the actual business of the general practitioner, as it is realized in his daily avocations. Their end is the greatest possible good for the greatest number; their means, the enlightened intelligence of the profession; their motive, the desire to elevate the general practitioners to that high social and professional position to which they are by education, attainments, and moral character, so eminently entitled.

As I find it will be necessary to address to you another letter, I shall not at present any longer occupy your attention.

I have the honour to be, Gentlemen,

Yours very faithfully,

VOX VERITATIS.

## MISCELLANEOUS CORRESPONDENCE.

### THE WOLF AND SHEEP ASSOCIATION.

[To the Editor of the Medical Times.]

SIR,—When a patient is in a state of dangerous lethargy, from the abuse of some narcotic agent, we are not very observant of the laws of ceremony in our attempts to rouse the dormant energies of the system; and your correspondent “Vox Veritatis” seems to have judiciously availed himself of the same liberty in treating a torpid state of the medical profession. The case required a stimulant; no doubt the patient would rather have been left alone: the interference was troublesome and offensive; but it was necessary, and the beneficial result is beginning to appear.

He has attacked, and very justly attacked, the Provincial Association, for presuming to take the reins in a most critical period of the history of medicine in this country; while it is quite incompetent to guide the chariot of Medical Reform. I say incompetent, because I am willing to give most of its members credit for a wish to do something, if they did but know what, and if the doing that something did not interfere with another and, it appears, a more important function of the society.

“A General Practitioner,” who writes in the “Provincial Journal,” seems quite indignant at any attempt to disturb the harmony of existing combinations. He is well satisfied to think that my observations on “snubbing” are quite uncalled for, because he and the fellows of his college did not quarrel over their cups at Norwich.

This, however, is not the question. If a number of medical gentlemen agree to “merge their little differences” in an annual jollification, and steam it across the country from place to place, carrying with them all the hilarity and joyousness of boys let out from school, so let it be; none but a kill-joy would object. All this is very excusable—nay more, it is very laudable. It keeps up old friendships, and creates new ones; it tends to bind up

many of the wounds which rankle in a notoriously jealous body of men, and which are in a measure inseparable from their calling.

But it is quite another thing when this body takes the public business of the profession into its hands, and talks of “great designs” and plans for “medical reform.” It then becomes necessary to watch with jealousy, lest too great sociability should beget indifference and unworthy compromise of principle. There is a time for all things—a time for loyalty, a time for social union and frolic; but there is a time also for work, and a time for stern opposition. It is beautiful to see Sir Robert and Lord John vie with each other in their hearty congratulations on her Majesty’s happy accouchements, or to hear the outpourings of their sympathetic bosoms at my Lord Mayor’s feast: but the nation would not be satisfied were they to carry this perfect unanimity of sentiment into the “business of the House,” and forget the interests of the public in the recollection of their festivities. And this is exactly the case with the Provincial Association. It is too friendly to be just, too happy to be particular, and too courteous to be of use. It is always at a dead lock, for no one likes to speak out. The profession is dying of urbanity, and no treatment less energetic than that of your correspondent will rouse it from its luxurious, though fatal, torpor.

The subjects introduced into his last letter, namely, the connection of the Charter with the Registration Bill is an important one. I have already pointed out (and I did so with pride) the manly and straightforward course pursued by the Gloucestershire Association in addressing the Queen in relation to the iniquitous Charter. I now again refer with no less satisfaction to another instance of watchfulness over the true interests of the profession, on the part of that respectable and energetic body. No sooner were the disgraceful and insidious designs of the Council of the College, with reference to the Charter and registration clauses in Sir James Graham’s Reform Bill, laid open to the execration of the profession, than, instead of a useless and degrading parley with their enemies, the Association seized the main point of the question, by sending a petition to the House of Commons, of which I enclose a copy for perusal at your leisure.

After denouncing the Charter, and the registration clauses, the petition concluded with a prayer “that an inquiry may be immediately instituted into the provisions of the said Charter, lately granted to the College of Surgeons, and the principles upon which its details in respect to the fellowship have been carried into effect, either by the appointment of a committee for this purpose, or such other method as to the wisdom of your Honourable House may seem meet; and that no BILL concerning the medical profession, which shall in any way recognise the distinction alluded to, be allowed to pass into a law until such an inquiry shall have been instituted.”

Such was the Gloucestershire petition—a document which I strongly suspect expressed sentiments by no means confined to the practitioners of that county.

I now turn with disgust to the last report of the Provincial Association, where I find it stated that, “as the proposal for a registration of all qualified practitioners of medicine in the bill of the late Secretary for the Home Department met with very general approbation from the profession (!), the COUNCIL ARE OF OPINION that great benefit would result from the immediate carrying of such a measure, at the same time that it would not in any way interfere with the adoption of the more extended measures so long advocated by the Association.”

Now, I shall not at present stop to inquire what the nature of these “more extended measures” may be, but shall merely conclude by asking the “General Practitioner,” who is so angry at its being supposed he was “pigeoned or snubbed” at Norwich, where he was, when the adoption of the report from which the above clause is extracted was carried—for carried I perceive it was



"unanimously." Perhaps he was so overwhelmed with civility, and being "treated as a man of science," that he did not know his right hand from his left. He reminds me of the country bumpkin, who falls into the hands of the swell mob, and is so intoxicated with the flattering attentions of his "gentlemanly" companions, that he is quite indignant and offended with the friendly bystander who whispers in his ear, that he had better take care of his pockets.

He tells us, however, that three-fourths of the company were, like himself, "general practitioners." If so, does not this abundantly prove the truth of my assertion, that *the members of the College like to be snubbed?* There were no less than 150 of them, so far from thinking that their College had snubbed them enough, that they were quite ready and even desirous of being snubbed by the Home Secretary, and both Houses of Parliament into the bargain!

I am, Sir, your obedient servant,

ECHO VERITATIS.

Nov. 27.

\*.\* The subjoined is the excellent petition referred to by our correspondent:—

"To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled;

"The humble Petition of the undersigned Members of the Royal College of Surgeons of England, resident in the county of Gloucester—

"Showeth,—That your petitioners, after pursuing the course of study required by the College of Surgeons, and after having been 'deliberately examined' by the Court of Examiners appointed for that purpose, have each received a diploma, declaring them 'fit and capable to exercise the art and science of surgery,' and have been thereby admitted members of that body.

"That by virtue of a charter, granted in the year 1843, by her Majesty, to the said College, the Council of that institution were empowered to select from among the members a certain number of persons, and to confer upon them the dignity and title of 'Fellows,' together with the privilege of electing the Council in future; and that this dignity was declared by the said charter to be designed, not only for the purpose of creating a constituency for the election of the Council, but also for that of promoting emulation among the members of the College, and thus advancing the science of surgery.

"That while your petitioners cannot but look upon such a distinction (however desirable in itself) as unjust, if made to operate retrospectively upon the character and interests of the great body of the members of the College, they more particularly desire to assert their most indignant protest against the manner in which the Council have exercised the power intrusted to them by the said charter, more especially, in the first place, by making the new honour a mere accessory to a public appointment, and thus elevating the surgeons of public institutions, as a class, above those who are engaged in private practice, without the slightest regard to their relative age, education, or professional attainments; and, secondly, by adopting a different standard in selecting candidates resident in the metropolis, from that which they acted upon in the case of provincial surgeons; and thus perpetuating the invidious distinction between 'surgeons in London' and the 'surgeons of England,' which it was one principal object of the charter, by a change in the title of the College, to destroy.

"That the said charter further requires that all existing members of the College, except those first nominated by the Council, shall undergo another examination, or be for ever excluded from the honour and privileges of the fellowship: an indignity from which your petitioners cannot but feel that the possession of the before-mentioned diploma, and, as in the case of many of them, a devotion of many years to the active duties of

their profession, ought, in fairness, to have exempted them.

"That in a bill which was introduced into Parliament last session, entitled 'An Act for the Better Regulation of the Medical Profession,' there are certain clauses which would connect exclusive legal privileges to the possession of the said fellowship, above those enjoyed by the other members of the College.

"Your petitioners, therefore, humbly pray that an inquiry may be immediately instituted into the provisions of the said charter, lately granted to the College of Surgeons, and the principles upon which its details, in respect to the fellowship, have been carried into effect, either by the appointment of a committee for that purpose, or such other method as to the wisdom of your Honourable House shall seem meet; and that no bill concerning the medical profession, which shall in any way recognise the distinction alluded to, be allowed to pass into a law until such an inquiry shall have been instituted.

"And your petitioners, as in duty bound, will ever pray.

#### WHAT WE HAVE.—WHAT WE EXPECT.

[To the Editor of the Medical Times.]

Ες δε τα εσχάτα νοσηματα αἱ εσχάται θεραπείαι ἐς ἀκρίβειν κρᾶνται.—HIPPOCRATES.

SIR,—In the letter which I addressed to you, bearing date October 24, I neglected to place on its forefront the title, which is always intended to be the quintessence of what is to follow—the *multum in parvo* of the author's lucubrations, the bait which is to attract the shoals of dainty fish in the sea of letters. There is nothing like a good title either to a letter or a book; and that which was lacking in me you have well supplied, for it not only summed up in a few words what was prepared for the reader below, but served as a good hint to those who would write on medical topics, to take up things as they now are amongst us, and then to expatiate on what we may expect.

To mark the rise and progress of any particular state, or of any particular science, is always, to a mind rightly disposed, an interesting employment; it brings us out of the narrow circle in which we are too disposed to entrench ourselves, gives us enlarged views of men and things, and fits us for useful activity by strengthening those benevolent principles which the Deity has implanted within us. The zealous searcher after truth is the man who possesses true greatness of soul; and, while his labours may pass unheeded by the multitude, he must inevitably live to bless mankind. Every new discovery not only adds to the stock of intellectual riches, but also to our common happiness. The science of government is one which has a direct bearing on the physical and moral condition of man, and its complicated machinery, worked by wise heads and good hearts, must accomplish the best results. Rulers, however, have been slow to learn that personal aggrandisement is not the end of office, and they have, in consequence, exhibited a guilty tardiness in fostering and elevating those sciences which are the invincible bulwarks of a nation's grandeur. It is not for us to enter upon an examination of the wrongs which governments have inflicted upon the disciples of truth in general. Every department will find its own champion, and, while we are willing to help them in their great work, we cannot forget that medical science claims our especial aid, inasmuch as it has been unaccountably neglected by those from whom better things are expected. It is true that nothing great or good has ever arrived at its proper place amongst men without a struggle. The foundations of error and prejudice have first to be uprooted; the rubbish of ignorance cleared away before the chariot can be moved triumphantly forward; but onward it must go as certain as that the light of the morning will progress to meridian splendour. This is encouraging to our hope; but the question naturally arises, what claim has medicine to an exalted place in the estimation of mankind? There are other professions which have courted the state so

successfully as to be linked in a union which seems likely never to be dissolved; while Physic, after the most pressing overtures on her part, has not only been rejected, but well snubbed into the bargain. We have been loud in our complaints; let us see whether we have justice on our side.

The study of medicine in itself is one well calculated to act beneficially on the head and on the heart. The influence which it legitimately exercises is one opposed to prejudice—to the dogmas of particular schools. The object after which it pursues is truth; and, like the eagle who dares to look upon the sun, and to stretch his pinions upward to the skies, so the genuine student of medicine steadfastly looks upon truth, and upon the wings of freedom soars to its abode. In his position he can yield to none but those whose care is for our better nature: the immortal principle destined to survive the wreck of matter. His study is man: the grosser part, we admit, and yet so interwoven with the immaterial as to influence it for good or evil. Man, we say, in his physical constitution, and in his physical relations; and what circle shall he draw to limit his investigations? It is his to examine the machinery in its several departments, and, as one great whole, to mark its harmonious workings in health, its aberrations in sickness; to act as a sentinel to man, watching over his interests, warning him of his dangers, and coming to his rescue when his health is invaded. The divine teaches men how to live above the world; the physician how to live in it. From his very avocations he comes in closer contact with the material universe than others, and his knowledge of it must necessarily be increased. It is, then, not too much for us to say that it is the true policy of a government and a people to encourage, by every means in their power, the study of such a profession, because, in the efficient discharge of its functions the health, and, consequently, the best energies of a nation, must certainly be involved. Here, however, the Government of England stands pre-eminently at fault. While it has rewarded senators, warriors, lawyers, and divines with the most brilliant gifts which it is in their power to bestow, the sons of medicine have had very little eulogy upon their gratitude for mercies received.

The position which they occupy at the present time is one which fills them with astonishment, and is, certainly, not very creditable to "the powers that be." Of the three learned professions, as they are called, the one now under consideration must certainly, from the condition of its members, be placed in the very lowest position. Here we are writhing under the weight of oppression, and chewing the cud of professional mortification. But is there not a cause that a science so ennobling in its pursuits, and so beneficial in its operations, should thus be found degraded amongst an enlightened people? It is useless to propose remedies for existing evils till they are traced up to the fountain-head, and, this once discovered, there is some chance of employing such remedies as shall eventually purify the streams. Medicine, as a profession, has had the misfortune to be cut up into different parts; as a science it is indivisible, as a profession it has been subject more to the caprice of men than any other. Esculapius, for his skill, had the privilege of being admitted to the nature and society of the gods; but why his temples should be so multiplied as to injure the science of which he is the presiding deity, is a question which requires a prompt and decisive answer. Universities have taken his sons under their especial care—colleges have been formed for the ostensible purpose of advancing their welfare and affording them protection, when, poor silly creatures, they have found, after receiving the privilege of adoption at such a price, they have entered a house divided against itself.

The division of labour in the practice of medicine cannot, when properly accomplished, be objected to; but, as it now exists, it is a fraud upon the public, and an insult to the man of genuine attainments. We have amongst us physicians, surgeons, and apothecaries (never mind the name, "a rose by any other name would smell as sweet"), doctors, pures and mixed, not to mention a vast flock of irregulars, extra-professionals, quacks, ganders, and



vultures, who, like the John Crows of the West Indies, scent flesh afar off, and hasten with rapid flight to the prey.

Physicians—let us not be misunderstood in the remarks which we shall make in reference to this department of the profession. A physician, properly constituted, is a man whom all should revere, and his college should be one of the noblest institutions in the kingdom. Is it so? The public look up to him as an oracle of medicine—a sage who, from some favoured source, which none but his order has discovered, has acquired such wisdom, knowledge, and experience, that the sick man esteems him as his very saviour; sends to him in the moment of his bitterest anguish, when hope is almost annihilated by despair; gives his gold for the paper on which are inscribed the mystic characters which, when embodied into pills and draughts, shall be the “extreme unction” to save him from death. Pray tell us if the physician in the abstract is what the man expects, or has a right to expect? We will just walk to Pall-mall, knock at the door of that gloomy-looking building at one corner, over which is inscribed “*Collegium Regale Medicorum*,” and we will ask upon what terms men are admitted into the privileges of the brotherhood? The door is opened at your bidding, and it may be that you are handed politely into a room well carpeted and pictured, and then you have put into your hand a paper which contains all the information you want. Now, then, for it—read:—“Every candidate for a diploma in medicine, upon presenting himself for examination, shall produce satisfactory evidence of unimpeached moral character; of having completed the *twenty-sixth year of his age*; of having devoted himself for five years at least to the study of medicine.” So then, after five years’ study, and at the age of twenty-six, he may become a physician, capped and gowned, tack on to his name M.D., and look with contempt upon the pigmy world of general practitioners who rejoice in the title of “surgeon, &c.,” which &c. you know, Mr. Editor, means—shall we put it in plain English?—we have no need to be ashamed of it, and yet really we are; and therefore we will put it in characters which the vulgar gaze cannot comprehend, but which, of course, the Cantabs and Oxonians in Pall-mall will speedily interpret. It is true the college has appended a rider within these few years, by which the “surgeon, &c.,” may, when he is come to years, having acquired the skill and experience of a veteran, receive the sacred parchment beginning with “*Sciant omnes*,” which admits him into the brotherhood. This is a saving clause of the order, for who but veterans—men who for a long period of time have combated disease in all its hideous forms, who, night and day, have been at the beck and call of the public, and have proved to them faithful servants—who, we say, but these should enjoy the lofty title of physician? The men who, to a liberal education and exalted minds, have added the rich stores of lengthened experience; and, till this be the case, the woes of our profession will not be removed.

Surgeons are another body in the profession of medicine; by these we mean the individuals who have never soiled their fingers by the making of pills, or their reputation (professional, of course), by the affix of &c. These are consecrated to their work by sprinkling of blood (reminding us of a dignified order of men under an ancient economy), and, solely engaged in the work of bonesetting, artery-tying, and abscess-opening, they are pure from all contamination with jalap and salts. In times past these gentlemen were shavers as well as bleeders; but, by some unaccountable reasoning, arriving at the conclusion that the cropping of beards was undignified, they dissolved partnership with the barbers, and set up on their own account in Lincoln’s-inn-fields. Here, with the assistance of Government, they erected for themselves a noble house, furnished it with a splendid museum, and then announced to the profession that they had on sale a diploma which candidates would be able to purchase for the sum of twenty guineas. But of what value was the paper to be to the possessor? It told him that he was admitted as a member, and authorised him “to practise the said art and science accordingly”; but, dismissed from the lofty

portals, he finds himself with the magnificent prospect of the wide world before him, and, as regards corporate privileges, houseless and homeless. It is true that, on particular occasions, he might wend his way to Lincoln’s-inn-fields, and enter the precincts of his beloved college; but, till within a few short years, he had to go “the back way home,” taking an especial note of a narrow thoroughfare which is called by the name of Portugal-street. And yet this corporation seems to have acquired an influence over its members which makes them submit to anything it may impose. A very incubus on the profession which it was intended to foster, it not only presses down the energies of its members, but would frighten them into abject submission: for it has been that an oration, intended to commemorate the deeds of one illustrious in the annals of surgery, has been made the vehicle of abuse against a large section of the auditors. Who, then, would cleave to such an institution with the hope that it would prove a nursing mother to the children? In the hardness of her heart she has cast them off, and in the pride of her supposed greatness she has turned a deaf ear to the voice of their supplications. No wonder, then, that a science so great and good in itself should, as a profession, be humbled to the very dust.

Turn we now to the Apothecaries, another division in the commonwealth of physic. The name has been branded with a stigma for no other purpose than to unduly elevate the doctors and pures; yet, under the class of apothecaries will be found the masses of the profession, whose business it is to combat disease under whatever form it may appear. They have been rightly termed “general practitioners,” because they are the medico-chirurgical attendants of all classes. It is remarkable that the corporate society in Water-lane—the pet of that modern Solomon, the first James, who could break a lance with a bishop, or write “*A Counterblast against Tobacco*”—should never have risen to the dignity of a college. There the company remains, in the smoke of the Queen of Cities, without the prospect of future emigration. The physicians have escaped with dismay from under the presidency of the Warwick-lane pile; the surgeons have dissolved partnership with the barbers; while the apothecaries are riveted to Water-lane, from which they cannot stir a peg. This corporation—the Chiron of modern times, though shot at with many poisoned arrows, has yet escaped the mortal wound—lives to superintend the instruction of men in the science of medicine, but, with a magnanimity unparalleled, has prayed the gods to deprive it of immortality on condition that they give life to a new embodiment with more glorious attributes. How strange that a society, without the prestige of rank in the professional world, should have obtained from the Legislature privileges which, by their judicious employment, have not only saved the general practitioner from ruin, but have raised him to a very honourable position in the world. The licentiates of this corporation, however, have no other privilege than that of watching over the lives and limbs of her Majesty’s subjects throughout England and Wales. Any spot may be selected within the prescribed limits where these licentiates may exercise their calling, but by a stern necessity, over which the honourable company has no control, they are forbidden ever to expect any further advantages. In this divided and, apparently, helpless condition, their enemies resolved to make a powerful effort to accomplish their destruction. Counting on the assistance of the Imperial Legislature, they introduced a bill which was to break down all barriers to the practice of medicine, making it free to the ignorant to assume a knowledge which they did not possess, and to exercise a calling which they did not understand. The Apothecaries’ Company, beholding the outcasts divided and ready to perish, with the true feelings of an *alma mater*, stepped forward to their help, soothed them, supported them, instructed them, and, while as a corporation they could offer them a home, took the lead in the great work of emancipation, by offering to the Government their privileges, on condition that the wanderers should be gathered into one fold, where they should be for ever secure. Pall-mall and Lincoln’s-inn-fields have strenuously

endeavoured to keep Water-lane in the rear for the last thirty years, but the latter has had a “persuader,” which has tickled the aforesaid so sharply as not only to make them kick up, but move on. These are not mere assertions, incapable of proof: the masses have spoken, and they have turned with grateful feelings and grateful acknowledgments to the company, whom they have acknowledged not only their watchful guardians but their undaunted champions. Thus it is evident that the profession contains within itself the elements of disorganization, but her woes are also multiplied from enemies without. Here we behold the ignorant pretender to the healing art puffing his nostrums into public favour by the most atrocious falsehoods, reiterated day by day, with all the effrontery of which impudence is capable, through the public prints, and through every channel by which the public attention may be arrested. Water-doctors and worm-doctors, silent friends and noisy charlatans, British Colleges of Health and Gilead’s cordial balm, with a host of pills, plasters, and ointments—panaceas for ills that flesh is heir to; the truth of which is often to be ascertained by a single trial, while the genuine nature of the preparation is to be known by the Government stamp. Surely, if ever there was an age of brass, this is the one. The numerous host of quacks, “brazen-coated” and brazen-faced, shoot from their quivers clouds of well-directed arrows, charged with a subtle poison, amongst the public, and the rulers in high places love to have it so. Alas! for the medical profession in this country. It is indeed a situation which should enlist the sympathies of the great and good, while it teaches its members in the plainest manner what is their duty.

It speaks emphatically of unity, without which nothing can be accomplished. With oneness of purpose every obstacle will be surmounted, every enemy vanquished. Closely bound together in purpose and action, the executive, instead of contempt, will show respect and give us the right hand of friendship and help. Why are the children of Esculapius so divided and weakened as to be a by-word amongst the people? Let it not be so any longer. The time is come for every man to know his duty, and to act it out; to forget the petty interests of self, and, if necessary, to suffer personal inconvenience for the general good. If salvation is to be ours, the first step towards it is indissoluble union.

Nor must we forget that no good is to be obtained without persevering effort. There are strongholds to be thrown down, prejudices to be removed, enemies to be overcome. The soldier, when he puts on his armour and enters the battle-field, is animated by one object—victory. This he does not expect to obtain without toil and danger and resolution. A single onset may not be sufficient: our squadrons may be repulsed, but hearts of oak will only feel in these things fresh incentives to perseverance till they have planted the standard of freedom on the ramparts of monopoly.

Moreover, it is requisite that the members of a learned profession should themselves be learned: mental discipline enlarges and strengthens the mind; the enemy knows this, and uses effort to keep down the aspiring intellect. The year of our Lord one thousand eight hundred and fifteen he would gladly erase from the calendar—or, rather, one of the laws enacted in that division of time he would blot out from the statute-book. The City men (cunning rogues!) then gave the West-enders a thorough go-by, and they have been blowing and wheezing ever since, with their efforts not to be distanced. It reflects honour on the individuals who have had the administration of the Apothecaries’ Act, as regards the education of medical students. To fit these for their responsible calling has been the constant effort, and not without success. In the present generation the schoolmaster is abroad, and his influence is powerfully felt by every class. Let the profession be especially careful to maintain an honourable station, in general as well as particular learning, and they will secure the respect and confidence of all around them. Nor is it too much for us to say that the good work has been already taken in hand. As nations have been favoured with the most illustrious patriots in seasons



of their greatest need, so, we have reason to hope, there are many in our midst whose talents and dispositions fit them for present exigencies. A crisis has called them forth, and with a virtue as severe as that of which ancient Rome could boast, they have obeyed the summons; they have erected the standard, and sounded the note which is to call together the scattered forces. Already numbers have joined their ranks, earnest of yet greater accessions, and of complete triumph over selfishness and tyranny. Such a victory benevolence itself must applaud, for it is one which will not only place the medical profession in its lawful position, but be the means of bestowing upon every class of society permanent good; and such is the object of the National Institute.

I remain, Sir, yours obediently,  
FILIIUS ESCULAPII.

Nov. 28.

## STATE OF THE MEDICAL PROFESSION.

[To the Editor of the Medical Times.]

Southall, Nov. 24.

SIR,—Permit me to say a few words in reply to a passage in the letter of "Vox Veritatis," in the *Medical Times* of last Saturday, wherein the general practitioners are termed—"defenceless, betrayed, and insulted"; might we not add that their case is the more deplorable from being insensible to their humiliating position! Yet a closer examination of the subject into which we inquire would convince any impartial observer, that, if he made a comparison between gone-by periods and the present times, that their status in society, both intellectually and professionally, is unquestionably on the advance. The general practitioner performs surgical operations which require exactitude and skill, nor does he shrink from the most difficult and daring; and the successful issue is a sufficient proof of his ability. The number of cases reported in our journals testifies to this great fact.

In their capacity of medical attendants, the nobility and commonalty, the learned and the unlearned, place their health and their lives in the hands of the general practitioner, with so much confidence that the occasional consultation is often nothing more than a conventional set, or only a mere ceremony wherein he can contrive to confirm an opinion as to the nature of the disease, and perhaps to divide a responsibility. The patient usually remains to the termination of his illness absolutely under the direction of the general practitioner.

The revolution which changed the City company of Barber-surgeons into a Royal College of Surgeons, at the same time elevated its members to a scientific and well-informed rank of practitioners. These have gradually invaded the province of the physician and surgeon, and now occupy that station which happily combines the offices of both these functionaries.

Another movement is about to be undertaken by the general practitioners. The future historian will describe this class as having been animated by an enthusiasm and purpose which seized the advantages of a development presented by the aspect of the times and their high medical attainments. The ancient institutions are but worn-out and emaciated bodies. The National Institute has a healthy vigour. Let it use its power discretely, and its triumph will be splendid.

I remain, your obedient servant, J. P.

P.S. The intimation of a union of the Provincial with a Metropolitan hebdomadal record was suggested by a London publisher, without the knowledge of any party at Worcester.

## THE MEDICAL ANNUITY FUND.

General Medical Annuity Office,  
Newport Pagnell, Nov. 23.

SIR,—The decision of the Provincial Medical and Surgical Association, at their last annual meeting, held at Norwich, being adverse to this society becoming an integral part of the Association, some alterations will be necessary in the rules and regu-

lations of the General Medical Annuity Fund. Preparatory to a general meeting of the friends and subscribers to the fund, I am desirous of informing you of the nature and extent of the proposed alterations, and of collecting from you your own views in the matter. The grand and comprehensive principle upon which the fund is based will remain untouched; but all reference to our society being connected with the Provincial Medical and Surgical Association will be struck out of our rules; and it will, in future, be considered as a perfectly independent institution.

Northampton, as well from its central position in the kingdom, as from its being the residence of our Treasurer, Dr. Robertson, will continue our headquarters; but it is designed that the society shall assume a migratory form, and hold occasional meetings at other places, where much local interest may exist; and where, by holding such meetings, the interests of the society may be advanced.

When the period shall arrive for granting annuities, it is proposed that a list of applicants for annuities be transmitted to every member of the Annuity Fund, who shall record his vote or votes, as the case may be; and, having returned them to the office, the voting papers will be examined, and the successful candidates declared. This, it is presumed, will greatly enhance the welfare of the society, and tend to secure a fair and equitable distribution of its funds.

Whatever advantage this society might have derived from its connection with the Provincial Medical and Surgical Association, it cannot but be admitted that the time of the members is so much taken up with matters especially and intimately connected with its own immediate object, that, at their annual meetings, attention could not be given to our affairs with that calm deliberation which the nature and object of our society must necessarily require. I cannot, therefore, but hope that its interests and advantages will be rather augmented than otherwise, by its being announced and established as a separate and distinct society.

The fund is now in a working condition: the first expenses, which are usually the heaviest, have been overcome—the machinery is ready for action; and it only remains to determine by this appeal to the united energy of the medical profession, whether this important institution shall flourish or not. I have already, on many occasions, exerted all the powers I possess to represent the claims which such an institution has on the general sympathy and encouragement of the profession. How loudly and imperatively it is called for, is evidenced by traces of destitution and misery amongst our unfortunate brethren in every county in the United Kingdom, and more especially amongst the widows and orphans of many once highly estimated and meritorious practitioners.

It is the design (and we have already been promised valuable support) to establish throughout the kingdom Local Honorary Secretaries, so that the principles of the institution may be made generally known, and facilities be given for the extension of its benefits.

We shall be happy to be favoured with your views of these proposed arrangements; and, as soon as we shall have received replies from the various subscribers to the Annuity Fund, a draught of the improved rules and regulations will be prepared, and a special general meeting be convened at Northampton: at which meeting we trust you will kindly give your attendance. Waiting your reply, I have the honour to remain,

Sir, your obliged and faithful servant,  
EDWARD DANIELL, Managing Director.

## BRIGHT'S DISEASE OF THE KIDNEY.

ACCURATE ANALYSIS!!!

[To the Editor of the Medical Times.]

SIR,—When a pathological question, such as the following, admits of mathematical reasoning, we look for very accurate results. Do we find such in this case? A kidney—a Bright's kidney—was exhibited at a meeting of the new Pathological Society, which weighed *eleven ounces*. This was analysed by the fat theorist, and the results of the

analysis, in facts and figures, were laid before the society at the following meeting, thus:—"One hundred grains of this kidney were dried over a vapour bath; the dried residue weighed  $31\frac{1}{2}$  grains. This was digested in ether, and, on evaporation of the ether, 3.2 grains of fatty matter remained. Was there any other deposit or accumulation in this kidney? None that could be discovered." Eleven ounces are 5,280 grains, which, at 3.2 per cent., give 169 grains, or 2 drachms 49 grains, as the total amount of fat in this kidney. A healthy kidney weighs four ounces or thereabouts; adding to these normal four ounces 2 drachms and 49 grains of fat, he makes a total of eleven ounces. Thus showing that fat possesses one more, in addition to the many miraculous properties that have before been discovered to belong to it during the prosecution of the fat theory of Bright's disease, namely, that of increasing in weight sixteenfold when mixed with a human kidney.

Seriously, Sir, is it not disgraceful to the cultivators of a science that ought to be based on natural truth, whereupon often depends the safety of life and limb, that such reasonings (?) as those alluded to above can be brought forward without being laughed at? Is it seriously stated and believed in November, 1846, that an addition of 3.2 per cent. is sufficient to account for an organ being nearly trebled?

I was astonished last year to see any credence given to this childish theory; every point in which involves an absurdity as glaring, or more glaring, than the one mentioned above. I had hoped that common sense, in the lapse of a year, had resumed her place, and that the fat theory was exploded; forgotten, except as an example to warn and scare. Not so, however: behold it resuscitated with a new proof—an analysis—if all be true, a miracle!!! Has medicine not yet advanced beyond the point where chemistry was in the days of that theory wherein phlogiston, abstracted from sulphur, left a remainder of more than double the weight of the original total? Apparently not. So much for doctors, dead languages, learning, and fellows. Pray, pathologists, lay down your M.D., F.R.C.S., and other letters of the alphabet wherewith ye tag your names, and strive to earn the C.C.S.,—the initials of ciphering and common sense.

Dec. 1.

VERITATEM PETO.

## PROFESSIONAL SECRECY.

[To the Editor of the Medical Times.]

SIR,—A case of the greatest interest to the medical profession, briefly glanced at in the last *Medical Times*, has recently been decided in Paris, by the Court of Cassation. As a lawyer who has devoted not a small portion of his time to the whole subject of medical jurisprudence, I think it right to call your attention to this decision, as it might lead practitioners in this country into error. The Court of Cassation, the highest tribunal of appeal in France, has held that a medical man is privileged to withhold, even from a court of justice, any facts which have come to his knowledge professionally, provided they were confided to him *under the seal of secrecy*. It is not a little remarkable, that in a case almost identical, and occurring at the same time with the above, the Court of Cassation of Brussels came to an opposite decision. My only object in addressing you, however, is to inform, through your valuable columns, the British medical practitioner that he can claim no such privilege as the French court has established. In the words of Lord Mansfield, when addressing Mr. Hawkins, who refused to divulge professional secrets (in the *Duchess of Kingston's case*):—"If a surgeon were voluntarily to reveal these secrets, to be sure, he would be guilty of a breach of honour and great indiscretion; but to give that information in a court of justice, *which by the law of the land he is bound to do*, will never be imputed to him as any indiscretion whatever." This decision was given in the House of Lords, and assented to by all present; it is further confirmed in the case of *Cutt v. Pickering*, and the celebrated *Annesley Peerage case*. The best mode of concisely stating this law of privilege is to lay down that according to the decisions of our judges—lawyers,



informers, and state officers, *alone*, are entitled to refuse divulging in a court of justice what has come to their knowledge professionally. Do not suppose I approve of this; I simply, for the instruction of medical men in this country, inform them that *ita lex scripta*.

Your obedient servant,  
D. C. L.

Inner Temple, Nov. 24.

### SETONS IN STRICTURE.

[To the Editor of the Medical Times.]

SIR,—I beg to state that the insertion of a seton *in perineo*, for urethral stricture, is not a new notion, although it may be so with Mr. Corey. I have frequently, for the last two years, pressed my belief upon my class, that a seton *in perineo* would prove a most useful remedy in cases of urethral stricture.

I have never yet had an opportunity, however, of reducing my belief to practice, owing to the general repugnance on the part of patients to its employment.

I believe that the seton in the perineum will be found also particularly efficacious in diseases of the prostate, and cases of catarrhus vesicæ.

I have never known the warm-water injection fail in giving relief in cases of retention from spasmodic stricture, or from secretion blocking up the passage in connection with irritable urethra and bladder; when a bougie would have increased the irritation and mischief, the warm water has acted as an internal, soothing, and relaxing bath.

I am Sir, your obedient servant,

G. D. DERMOTT.

28, Bedford-square, Nov. 30.

### THE LATE DR. THOMAS DAVIES.

[To the Editor of the Medical Times.]

SIR,—My attention has been drawn to a gross and illiberal attack made upon my late father, Dr. Thomas Davies, in the notes to a recent translation of Laennec, purporting to be published by a Dr. Theophilus Herbert. In these notes I find a statement directly charging my late father with having wilfully misrepresented the results of his practice in regard to empyema, and with having inserted in the table, published in his "Lectures on the Diseases of the Chest," a number of cases of that malady, stated to have been cured by paracentesis thoracis, but in which the operation had never been performed. Having no intention of entering into a controversy with the translator, nor with the individual by whom he has been assisted in the work, I shall strictly confine myself to the following brief statement, believing that I shall thereby best vindicate my father's memory from an imputation which, coming from whatever source it may, ought not, I conceive, to be passed over in total silence.

The table, detailing the results of the sixteen cases of empyema uncombined with phthisis, referred to by the writer of the notes to the new translation of Laennec, was first published by my late father in the "Medical Gazette" of February, 1835, and in it were also given the names of the gentlemen who performed the operations. The truth of these statements was questioned by no one during my father's lifetime; and it is now for the first time, at a period of eleven years from the publication of the cases, and more than seven years from my father's death, that the individuals who have combined in the compilation of these notes have thought proper to advance a charge, involving not only my late father, but also the gentlemen who conducted the operations, and allowed their names to be inserted in the published table. With the exception of Mr. Headington and Mr. John Scott, these gentlemen are still living and capable of proving the absolute falsehood of the statement. A brief consideration of these facts will be sufficient, I conceive, to enable the medical profession generally to estimate the degree of credibility to be attached to these notes to Laennec, and will be sufficient also to enable those who are in any

way acquainted with the parties connected with the work to infer the motives which have led to the publication of so gross and false an accusation.

Hoping you will allow the insertion of these remarks in your valuable journal, I beg to remain, yours obediently,

HERBERT DAVIES.

23, Finsbury-square, Dec. 1.

### AFFIDAVITS OF MESSRS. W. J. E. WILSON AND T. WAKLEY.

No. I.

IN THE QUEEN'S BENCH.

WILLIAM JAMES ERASMUS WILSON, of Upper Charlotte-street, Fitzroy-square, in the county of Middlesex, Fellow of the Royal College of Surgeons, maketh oath and saith, that he hath long known Thomas Wakley, of Bedford-square, in the county of Middlesex, Esquire, one of the Coroners for the said county of Middlesex; and that, since he so became a coroner, the said Thomas Wakley hath occasionally issued orders to him, this deponent, to make *post-mortem* examinations of deceased persons in certain cases; but that he, this deponent, hath not, as he, this deponent, verily believes, made more than twenty five such *post-mortem* examinations since the said Thomas Wakley became such coroner, being a period of upwards of seven years. And this deponent further saith, that the said Thomas Wakley never in any manner whatsoever participated, or was partner with him, this deponent, in any fee or fees whatsoever, payable or due to or received by him, this deponent, for making any such *post-mortem* examinations, or for giving evidence upon the result of such examinations; and that he, this deponent, never gave to the said Thomas Wakley any receipt for any fee or fees or money whatsoever payable to him, this deponent, for making any *post-mortem* examinations, or for giving evidence upon any inquest, which had not been fully and wholly paid by the said Thomas Wakley to him, this deponent; and that he, this deponent, never, after any such fee or fees had been paid to and received by him, repaid to the said Thomas Wakley the said fee or fees, or any part thereof; and that the said Thomas Wakley never participated or was partner in any such fee or fees, or any other fee payable or due to him, this deponent.

W. J. ERASMUS WILSON.

Sworn at Westminster-hall, this 12th day of November, 1846, before me,

WM. WIGHTMAN.

\*\*\* In our next we shall give No. II.

### GOSSIP OF THE WEEK.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The Fellows of this Society held their first meeting this session, on Tuesday, the 10th inst., Dr. Watson, V.P., in the chair. The library was well filled. The Chairman congratulated the society upon the commencement of the session, and called attention to the appearance and illustration of the volume of Transactions lately published, which he commended as an improvement on its predecessor. Several gentlemen were proposed as candidates for the Fellowship of the society, and the secretary read the first paper on encephaloid tumours. Subsequently a communication, by Dr. Aldis, on a case of peritonitis, was read; and afterwards a paper, by Mr. Solley, on the functions of the anterior and posterior columns of the spinal cord. We give abstracts of the paper and discussion in another column.

CHARGE OF DELAY IN DISPENSING MEDICINES.—By Mr. Mills, at the Lord Nelson, Mary-street, Hampstead-road, on the body of Charles J. Osborn, aged sixteen months. The mother of the child stated that it had died on Monday last. On the previous day, it being attacked by diarrhoea and vomiting, she took it to the University College Hospital, where it was seen by Mr. West, one of the house-surgeons, and prescribed for. The pre-

scription she took to the porter, who told her the dispenser was at church, and would be back at one o'clock. She waited until half-past one, but, the dispenser not coming by that time, she went home, and sent her little boy, who waited, he said, at the hospital for three-quarters of an hour, when the porter told him that the dispenser was not there, and that he must come again at five o'clock; the boy went again, but came home without any medicine, saying that the dispenser was not at the hospital, and that the porter and a nurse told him the dispenser did not like to be troubled on Sundays. Some contradictory testimony was given by the boy and by the porter, but the coroner and the jury seemed inclined to believe that the boy's statement deserved the most credit. The jury, after some deliberation, returned a verdict of "Death from natural causes," saying, that though they did not attach individual blame anywhere, they hoped the authorities of the hospital would adopt precise regulations relative to the dispensing of prescriptions, so as to prevent the recurrence of any such lapse as that for the future.

THERAPEUTICAL APPLICATION OF CAOUTCHOUC.—Common salt was at one time regarded as a sovereign remedy against phthisis in all its stages; but it has resumed its old station as a culinary article, and is now beneficially employed only by cooks. Cod-liver oil succeeded the saline treatment, but this appears to be gradually losing ground, and before long will probably share the fate of common salt. A Presburg physician has, however, contrived to stumble upon a remedy which certainly has the merits of novelty and originality over the two above-mentioned plans of treatment. This is the inward use of caoutchouc or indian-rubber as a therapeutical agent! According to the account given by its discoverer, its powers are marvellous. A boy twelve years of age, labouring under hectic fever, swallowed by mistake two drachms of caoutchouc: in six weeks he was perfectly cured! A woman aged thirty-eight, who was in an advanced stage of phthisis, having been informed of the above-mentioned result, stole some pieces of caoutchouc and swallowed them: her symptoms became speedily alleviated. The caoutchouc was repeated, and she was perfectly cured.—*Gaz. Medicale*.

### MORTALITY TABLE.

For the Week ending Saturday, Nov. 21, 1846.

Causes of Death.	Total.	Average of 5 autumns.	5 years.
ALL CAUSES.....	944	1000	968
SPECIFIED CAUSES...	940	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	168	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	90	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	144	151	157
Diseases of the Lungs, and of the other Organs of Respiration....	311	313	294
Diseases of the Heart and Blood-vessels.....	37	29	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	70	70	72
Diseases of the Kidneys, &c.	17	8	9
Childbirth, Diseases of the Uterus, &c.	18	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	5	2	2
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PROGRESS OF MEDICAL SCIENCE,  
INCLUDING CHEMISTRY AND PHARMACY.

## ORIGINAL CONTRIBUTIONS.

A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

By SAMUEL WRIGHT, M.D.,

Physician to Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; Physician to the General Dispensary; Extraordinary Member, and formerly Senior President, of the Royal Medical, Royal Physical, Hunterian Medical, and Cuvierian Natural History Societies of Edinburgh, &c.

*Nature and objects of Clinical Instruction; how administered; Hospital attendance; value of simplicity in lecturing; elemental truths of the bedside, and the desirableness of regarding them; simple cases and serious ones, alike meriting attention; illustrations; general observations preparatory to the special duties of the Clinical Chair; examination of patients; diagnosis at sight—jaundice, anasarca, malignant visceral disease, skin diseases, phthisis, chlorosis, pancreatic disease, mesenteric disease; pathological conditions requiring further investigation; verbal inquiry, and physical examination; manner with patients; liabilities to deception; illustrations.*

GENTLEMEN,—In my Introductory Lecture, delivered the other day, I gave you an outline of what clinical medicine is, or, at least, of what it ought to be. I told you that, in its best form, it is made up of cases, and practical comments. The cases are those which it occurs to us to observe, day by day, as we go through the wards of the hospital. In doing this, you know I never lose an opportunity for making such casual observations as the condition of a patient, the features of his disease, or the action of medicines upon him may call for. It is the putting of these several items of any particular case together, or the grouping of a series of such, with illustrations and elucidations, that constitutes the practical commentary of the lecture-room. In the hospital, I point out what seem to be things worthy of your regard; in this room, it is my duty to reveal them to you, with explanations.

You will see, hence, the desirableness of regularly accompanying me to the hospital, and to the dead-house (the latter, I hope, will seldom summon us), that you may be somewhat prepared in the several subjects upon which I shall have to discourse.

My chief business here, as you know, is to teach you how to recognise and treat disease. To this end, simplicity of expression will be a great contributor. By using words that you will have no difficulty to understand, and no more of them than are necessary to convey my meaning, you will best arrive at this, and be least likely to mistake it. In subsequent discourses, as in this one, I shall prefer familiarly to "think aloud" to you from my case-book, rather than to read to you a lecture of elaborate and studied verbiage. The one, I know, will neither cloud nor encumber the

information I may have to convey; whilst the other might not only do this disservice, but occasionally play the cheat, by seeming to be the vehicle of knowledge, when there was none. You will excuse, then, the plain, unpretending manner of my address, and the simple truths I may put before you. The one, as I have said, is the most available means of being rightly understood; and, as to the truths, if they be such, fresh from the bedside, they will be worth your receiving, however elemental. All great facts, in pathology and therapeutics, are found to be aggregates of smaller ones: it is in the sum of these, correctly gathered and arranged, that consists the richness of our practical knowledge. Every day that you advance in experience will tell you that there is no fact in medical practice too trifling to stoop for. He is the well-skilled and the wisest man, who possesses these trifles in the greatest abundance. If your minds be, as they ought, ever on the alert to receive knowledge, there will be no case, however common, no *post-mortem*, whatever its precedents, from which you may not gain information.

A familiar phrase in domestic economy tells us, that, if we take care of small sums, larger ones will take care of themselves. This is just the truth in reference to bedside duties. If you observe all the little facts of a case, there will be no fear of the more serious ones escaping you. Students are apt to commit the error of only regarding diseases that possess a particular interest: a frequent question concerning hospital practice is, whether there are any good cases? Aneurism of the thoracic or abdominal aorta, hydrophobia, gangrene of the lungs, schirrus of the pylorus, perforation of the stomach, intussusception, and such like, come under the popular category. These things the student delights in running after, forgetful that, in his future practice, it is unlikely he will ever see one of them again. He neglects common ailments as unworthy his notice; unmindful that his after life will be chiefly occupied in attending to them. This is the main reason why so many begin practice, quite unprepared for it. I have known a man discourse learnedly on elephantiasis, of which he once saw a specimen, and yet fail to recognise a palpable case of smallpox; another, remembering nothing but the odour of *gangrena pulmonum*, designated thus a case of empyema, that was discharging its fetid pus by the bronchi. Be attentive, gentlemen, to hospital practice in-

discriminately, and you will be the greater gainers in consequence.

Before proceeding with the special duties of this chair, let me speak to you of a few generalities that it becomes you to know. These relate to the ordinary examination of a patient. When one presents himself for treatment, the first thing, of course, is to find out what is amiss with him. This may sometimes be learned at sight. It is seldom that a particular yellowness of skin and conjunctiva represents other than jaundice; that puffed extremities, pitting on pressure, are instances of anything but anasarca; various skin diseases are recognisable at a glance; the dingy complexion, shrunken features, and anxious look, in malignant visceral disease, are indications often true enough to be trusted; the bright eye, pearly conjunctiva, pale complexion, and its hectic contrast, in the wasted consumptive, rarely deceive us as to the death that is impending; the greenish-yellow of the otherwise transparent female skin speaks with a strange certainty of chlorosis; an alabaster whiteness, *sui generis*, makes us suspicious of pancreatic disease; a shrivelled face, looking old and thoughtful in its very infancy, and a hard tumid abdomen, with emaciated limbs, tell of mesenteric mischief in the child.

These are visible signs that give us some knowledge, on the instant, of a patient's case. Pathologically speaking, however, this knowledge is only extrinsic: there is a deeper information to be gained before we can pronounce with any certainty upon a disease or its proper treatment.

The jaundice may arise from mere inactivity of the liver, unconnected with organic lesion; from simple congestion of the viscera; from tubercular, cancerous, or fatty degeneration of it; from cirrhosis; from obliteration, temporary or permanent, of its ducts; from gall-stones, &c. The anasarca may be consequent upon an impoverished state of the blood, the result of great losses thereof by the lancet, by accident, or spontaneously; upon a constitutional laxity of tissue, the blood-vessels having neither substance nor strength enough to retain the watery part of their contents; upon a cachectic and debilitated state, the offspring of chronic disease, of profuse mercurialization, or imperishment; upon disease of the heart, especially patency of its tricuspid valves; upon disease of the kidneys, such as tubercular degeneration, granular deposit, fatty deposit



or even simple congestion. The visceral disease may be scrofulous, or one of the varieties of cancer, and involve any of the organs in the two great cavities—the chest and abdomen. The phthisis may have many complications and exciting causes, and be more characterized by the state of the patient's blood than the injury of his lungs. The chlorosis may have its origin in scrofula, in dyspepsia, in disorder or disease of the uterus, or of some other organ with which it may sympathize. The pancreatic disease may be cancerous or scrofulous, existent singly or in conjunction with pathological states of other organs. The mesenteric mischief may be due to simple enlargement of the glands; to enlargement with schirrosity; or to tubercular deposit and development. This latter may be hereditary, and the offspring of the worst forms of the scrofular diathesis, in which case, treatment is for the most part out of the question; or it may be the effect of certain contingent circumstances, as early weaning, imperfect supply of food, too rich or too poor nutriment, inhaling a constantly bad atmosphere, or inhabiting a damp and dark residence—in these cases, change of circumstances may induce change of health.

These are a few, amongst numerous instances I might mention, to prove the necessity of inquiring and examining minutely into cases, in order to understand them in correct pathological detail. The inquiry is pursued through questioning; the examination through the agency of one or more of the senses.

In conducting your inquiries, let your manner be perfectly easy and natural with your patients. Avoid peculiarity and eccentricity of every kind: be simple, straightforward, unostentatious, yet serious, in what you say—this is the most likely means of arriving at the truths you may be seeking for. Put your questions with proper earnestness and pertinence, and be so alive to what you are doing as not to repeat interrogatories that have already had their answer. An anecdote is related of a fashionable physician who was summarily dismissed by a patient for asking the same question three times over whilst playing with the ears of a lapdog. The lady, naturally enough, concluded that he was thinking more of the animal than of herself. To be idle in putting your queries, and indifferent about the proper answering of them, is to run a very probable chance of losing the patient and his confidence together.

Particularly avoid harshness, haste, and affected bluntness, in addressing the sick, especially the sick poor. They have hearts and sympathies as tender as yours; and an unkind word may, perhaps, cause a tear to start, and a sigh to heave, where these emblems of sorrow have already shown themselves many times too often. Rather drop a word of comfort when occasion calls for it: it may prove an acceptable pearl of pity in the cup of sorrow of which poverty has to drink. The poor, you know, are *dependents* upon your service: let the consciousness of this prompt you always to treat them with generosity. If you ever wish to adventure eccentricity or roughness of manner, try them upon a patient that *pays* you for attendance. He is as independent as you are: if he like your humour, he can please himself in laughing at it; if it disagree with him, he can afford to request that you will either decline your vagaries or your visits. The poor man is obliged to bear with them, for he has no option: remember this when you visit him in sickness.

An undue tenderness and delicacy, on the other hand, whether actual or feigned, is seldom acceptable. Excessive suavity and sympathising, patients are apt to consider somewhat identical with hypocrisy. There is a seeming meanness about such things which are unworthy a noble mind. Wear no false character: if your own need improvement, mend it in the best way you can, and always consistently with honour and honesty; but avoid everything artificial.

"Still, true to reason, be your plan,  
Let all your actions speak the man,  
Through every various scene."

Never use ejaculations, or expressions of surprise, when patients are telling you their ailments. To meet details of disorder by such phrases as "Dear me!" "Astonishing!" "Well I never!" "Most extraordinary!" and such like, is to make people think, and very naturally, that you have seen little of your profession, and to infer that you know but little about it. Moreover, the human mind is naturally fond of the marvellous—as fond of detailing it as of hearing it detailed. This constitutional infirmity of ours may occasionally prompt a patient, already entertained by your expressions of wonderment, to try a joke upon your credulity. So far from encouraging inclinations of this kind, you should be always on your guard against them, and instant in checking their slightest manifestation. Patients are singularly disposed to astonish you, and impose upon your belief, if they have chance of doing so. Some do it for amusement; others from a downright love of deception, or to gain something by it; and others, again, through thoughtlessness and want of knowing better. The two former are known by the name of malingerers, of which you are aware I have lately had an old-established specimen. She will form the basis of a discourse upon this subject at a future day. Those who are likely to deceive *you* and *themselves* at the same time, it behoves you to be cautious with in your examination. This brings me to consider the ordinary mode of conducting inquiries into ailment.

As I have told you, whatever may be the external indications of disease manifested by a patient, there is something further to be sought for, *viz.*, *symptoms and signs*, elicited by questioning, and by the agency of the senses—physical examination.

A leading query to put to an invalid is, to ask what he is chiefly complaining of? Having made this interrogation, leave him to tell his tale, or at least as much of it as you are interested in knowing. Some patients, especially females, are prone to garrulity, and, if you give unlimited license to their tongues, will charge upon themselves, in half an hour's talk, half the diseases in the nosology. The woman Frost, in the bottom ward, is a case in point. You have seen me, once or twice, when I had time for the amusement, listening whilst she discoursed with a rare volubility about her bodily troubles. Had she the sores of Job, inside and out, she could not have told a more pathetic story. It was nearly all morbid imagining and love of gossip, for she was perpetually teasing the other patients with the details of her distress; and you remember how systematically she improved after I put a check upon her talking, and told her how much better she would be for allowing her tongue a little rest. To have believed a fraction of what she said would have been to put our pathology and *ratio medendi* to a very equivocal test. This day week, you remember, I called your attention to two out-patients who were practising deception, perhaps unknowingly. One was a stout lubberly fellow, hale and hearty-looking, who had been under treatment some time for trifling dyspepsia. This, he admitted, was remedied, and he could eat, and drink, and sleep, and walk, and talk well, but he could not work very well. Then I asked him about his pains, and you recollect I named no organ or limb in which he did not aver there *was* pain. To have credited this statement would have been to think him a martyr. When I told him he wanted no more physic, but had better resume his employment, he went away perfectly satisfied. The other was a girl, fresh and blooming, with as bright an eye, and clean a tongue, and calm a pulse as ever were met with, yet she has persisted in teasing us for a month past about a pain in her face, which she says agonizes her night and day. All her functions are regular and healthy; there are no local circumstances to account for the pain, and her general good looks flatly contradict her story about suffering and sleeplessness. I promised her a blister at our next meeting, and I have no doubt of her improvement.

The time warns me, gentlemen, that I must close. I must beg a return of your polite attention to a few more of these preliminary and homely truths at the ensuing lecture.

## SUBSTANCE OF A LECTURE.

By Sir BENJAMIN BRODIE.

### LATERAL CURVATURE OF THE SPINE.

GENTLEMEN,—In commencing another course of lectures on various important surgical diseases, I think it right that I should say a few words as to the origin of these lectures, and the course I intend to give. It was in this hospital that I commenced the study of surgery, and that I passed some of the happiest moments of my life; in the wards of this hospital I was enabled to observe carefully the progress of disease, and the various modes of treatment, and to obtain the amount of surgical knowledge I possess; therefore, when I resigned the office of surgeon to this institution, I felt desirous to communicate to the future students some of the information I had obtained; and my colleagues, perhaps kindly overrating my powers, considered I could not better perfect that intention than by delivering a course of lectures on some important parts of surgery. These lectures will not be confined to one particular class of diseases; but will refer to some diseases of consequence, and of which there is not much written in books. I know well, when a young man, how I have been puzzled about a case, in not being prepared for the uncertainties and peculiarities I met with; but patience and careful observation yielded me that knowledge which it is my intention to impart to you, and by which you will be greatly assisted in making a correct diagnosis, and necessarily save yourself much anxiety, and your patient much suffering.

I shall speak, in this lecture, of a very prevalent disease—lateral curvature of the spine. It is a disease that, perhaps, we more often, or at least as often, meet with as any other. The centre of gravity may be disturbed by a variety of circumstances, and so produce it; a high-heeled shoe will do so, or a weight on one side. When the vertebral column bulges out on one side, the patient, to keep up the centre of gravity as nearly as possible to the median line, puts himself in such a position as to form another curvature, to overcome the effects of the first. But the alteration is not alone confined to the vertebrae: the surrounding bones also have an unnatural position; the convexity of the ribs is much altered—they are bulged out on one side—and the sternum is depressed.

As I before remarked, a multiplicity of causes may disturb the centre of gravity; and anything that disturbs the centre of gravity may produce lateral curvature of the spine. In some cases we find it depend upon one femur or tibia being longer than the other. In treating such a case, you would not apply remedies to the spine; all we can do is to equalize the length of the limbs by having a high sole and heel to the boot requiring it; and these need not be made of any unusual thickness, for if you lessen those of the long limb, it will be equivalent to adding to the other. But you may also have a difference in the length of limbs arising from disease, probably from deficient nourishment, yet often it is from the contrary—the diseased bone is too much nourished, and consequently becomes too long; again, it may arise from accidental causes—the femur may have been fractured and badly united. But, in short, from whatever cause the lengthening may arise, we shall surely have lateral curvature of the spine, which must be treated as I have mentioned. Very frequently, in cases of diseased hip accompanied by abscess, the patient is left with a shortened limb; in this case part of the acetabulum and the head of the femur may have been destroyed. Now, curvature after diseased hip may arise, not unfrequently, from the improper manner in which the patient lies in bed; for twelve months, perhaps, he lies in a very awkward position, and on a feather bed. Upon his recovery, how can we be the least surprised to find a lateral curvature!

We not unfrequently find a limb, or some muscles



of it, paralysed, and which is called infantile paralysis. Here the morbid symptoms indicate water in the ventricles. In such cases the healthy limb, being larger and more used, produces, of course, an effect on the spine. Now, under such circumstances, you must direct your attention to the head, and not to the spine. As regards medicinal treatment, if you give mercury at the commencement, it may produce benefit, but after three months you need not try anything—all fails.

The same thing happens in the upper extremity. Observe the paralysed arm wasting from disease, and the healthy one increasing from being called more into action; its muscles are so fully developed as greatly to exceed in weight those of the other side; now, this weighty arm pulls down the shoulder, and consequently curves the spine. Nursery-maids, from carrying a child always in one arm, are very liable to have curved spine, and it is the duty of those better informed to point out the evil of the practice; though most people do not trouble themselves about the forms of their servants. But the evil is not alone confined to one in this case: the child is almost certain to have a curved spine also, from being so much in one position. A little girl is in the habit of carrying her little brother: she does it so often that, probably, the result is a curved spine. Again, disease of the heart—hypertrophy—will produce curvature; so will pneumonia or pleuritis, when followed by consolidation of one of the lungs.

Formerly rachitis was supposed to produce curvature of the spine; but it will be seen, however, in rickety bones, that those supporting the greatest weight, bend first: thus the femur, tibia and fibula, and pelvis; but the spine certainly does, when the affection is severe. Now, it will be observed that the spine does not, in rachitis, become curved if the other bones remain straight. In such cases, as regards the treatment, we can do nothing to the spine; the softening of bones, here, depends on constitutional disorder—a deficiency of earthy matter.

Irons are frequently applied; these, however, are a great inconvenience: their weight is injurious to the child's health; besides, by their pressure on some other part, they produce a double curvature. It will be more proper to give tonics—as steel; baths—both shower-baths and bathing in the sea; plenty of country exercise, and rest afterwards by reclining on a bed sufficiently hard. But always bear in mind that, whatever you do, you must not fatigue your patient: any treatment that is irksome and fatiguing cannot fail to do harm. Mr. Shaw has invented a bed, on which the patient may exercise and strengthen the muscles whilst lying on the back; it is a very useful means of treatment. Constantly lying in bed or on a sofa never fails to do harm.

Lateral curvature almost always begins in early life, during the period of growth; all curative means must be employed during this time; after this period you can do nothing towards a cure. In all cases, you cannot undertake their treatment too early.

## The Nature, Causes, and Treatment of Mental Diseases.

By M. PINEL, M.D., Member of the Academy of Medicine, formerly Physician to the Bicêtre and Salpêtrière Asylums, Author of the "Traité Médico-Philosophique sur l'Aliénation Mentale," "Médecine Clinique," "Nosographie Philosophique," &c. &c. Translated, with Notes, illustrative of some important Doctrines in Physiology, Phrenology, and Moral Education,

By DR. COSTELLO,

Principal of Wyke House Asylum, Editor of the Cyclopædia of Practical Surgery, &c.

### ALIMENTARY REGIMEN.

The incessant restlessness of the insane sufficiently accounts for their imperious craving for wholesome and abundant food, and even for the voracity with which some of those patients are tormented. It is in mania, and dementia more particularly, that we find the insane subject to appetites and cravings, the activity of which surpasses belief. In the melancholic, those great perturbations of the digestive functions are not so

marked; in others, the disgust at food is so great that the patient absolutely refuses all food. But these cases are rare, and it must be admitted as a general rule, that the appetite of the insane is very great, and that they are not satisfied with what suffices for a man in health!

Pinel was much struck with this fact, when, in the midst of the terrors of the Revolution, he took charge of the insane at Bicêtre. And accordingly he regarded it as one of his most sacred duties carefully to watch over the culinary service, in its most minute details; and he records, with an evident satisfaction, the minute attention he bestowed on the preparation of their food. He thus speaks on the subject—"I took constant care to have always in reserve the food left from the preceding day, cooking with it vegetables, and thus to augment the daily supply, and to store up the cold meat, fat, and stock for the fast days, so as to render the supply equal for all the days of the week. By this plan, and by subjecting the meat—contrary to the former usage—to slow and continuous simmering, the fibrine was rendered tender and pulpy, and the slow solution of the gelatine in the liquid produced a strong, wholesome soup."

To have an idea of his solicitude on this subject, one must read the bitter complaints he made during the famine of the year IV. of the Republic. "It was," he says, "by carefully calculating the wants of the insane, that during the reign of the Constituent Assembly the daily ration was fixed at a kilogram, and during two years I had reason to be satisfied with this salutary arrangement. I left the Bicêtre; but, in one of my visits of kindness to my old patients, I found that the bread ration had been reduced to 7 hectogrammes, and that several convalescents had again become furious, and were uttering piercing cries that they were dying of hunger. The evil progress of the famine was rendered still more evident afterwards, when the ration was reduced to 5, 4, 3, and 2 hectogrammes per day. The effect was such as might have been foreseen, and the mortality was frightful."

### MANUAL LABOUR.

It is no longer a problem to be solved, but an invariable result of experience, that in all public institutions for the insane, the surest and, perhaps, the only guarantee for order and cure, is the institution of manual occupations rigorously carried out. Few of those patients, even in the state of furor, should be withheld from all sorts of active employment. Can there be a more afflicting spectacle than to observe, in all our national establishments, the insane of every grade passing their time in vain and incessant motion, agitating themselves for no purpose, or plunged in sadness, sluggishness, and stupor! What more certain way than this of keeping up the effervescence of their imagination, the habit of their violent bursts of temper, and all the extravagances of delirious exaltation! Constant employment, on the other hand, breaks the chain of their false notions, steadies the faculties of the understanding by giving them exercise, and alone suffices for keeping order in an establishment for the insane, and dispenses with a number of minute rules for its observance. I have always regarded the return of the convalescent insane to former tastes, to the exercise of their trade, their exhibition of zeal and perseverance, as of happy omen, and as the best ground of hope for a permanent cure."

Manual labour furnishes a counterpoise to the wanderings of the mind, by the pleasure which the culture of the land produces, and by the natural instinct which impels man to till the earth, and thus provide for his own wants. In the public establishments where manual occupations are resorted to extensively, experience has fully shown of what great importance they are in restoring reason. Persons of the upper classes, who disdainfully reject all idea of mechanical employment, retain also the unenviable advantage of having their delirium and their insensate extravagances perpetuated.

Pinel understood the great importance of the adjunction of a sufficient quantity of land to our great establishments for the insane, on which the patients might be employed according to their tastes and wishes. The Revolution prevented the

accomplishment of his desires in this respect, and it was not till thirty-six years after that a farm could be granted in France, as an auxiliary to cure. Indeed, it is only recently that the farm of St. Anne's has been arranged for the reception of the convalescents from Bicêtre, and that the happy effect of this innovation could be appreciated. There the patients restored to reason are protected from contact with anything likely to give them pain, or to revive painful recollections. The spectacle before them is varied and agreeable—active rural occupations, in which they bear a part cheerfully, because they are aware that it is for them the last test that confirms their cure and restores them to liberty. Although established only a few years, St. Anne's farm has already obtained a rapid development, and begins to enjoy a reputation which must stimulate other establishments to secure the same advantages. Improvements of various kinds, levellings, perfect farming, and the establishment of a bleaching-ground in full profit, are the results which already show to what account we may turn the labour of those patients who still are allowed to remain abandoned to idleness and disorder in our public asylums. And now let us remark the providential connection of everything that is at the same time logical and moral. These poor creatures, in becoming useful to society, become still more so to themselves; not only are they cured more rapidly and more surely, but even their physical and moral constitution undergoes a change which makes new men of them. While at Bicêtre most of them were pallid, wasted, and, when cured, they went away a painful presentiment that they would be soon, perhaps, sent back; but at St. Anne's farm they are cheerful, strong, and buoyed up by the consciousness of their own powers to provide for themselves.

This great law of labour and of manual occupations does not apply to convalescents only; it applies also to the incurable, and even to those in a high state of excitement, as Pinel positively asserts. This opinion was too much in advance of the period in which he pronounced it not to be set down as a sophism; and it might appear too bold even now, were its correctness not proved by experience. We have had, under our own eyes, an example too striking not to be related here. When the determination was come to of erecting new buildings at the Salpêtrière, the happy idea occurred of employing the patients of Bicêtre in levelling the ground and forming the terraces. For this purpose, during six months, a squad of fifty patients was sent every morning from Bicêtre to Salpêtrière, under the guidance of a few attendants and an intelligent inspector; they worked with exemplary ardour all day at hard toil, and came back joyfully at night. The walk, the novelty of change of place occurring every day, the constant activity at a labour in which they were made to feel an interest by the payment of some trifling wages, formed a pleasing spectacle. Amongst the number there were some in a state of high excitement. One, in particular, laboured under a delirium almost furious and continuous: he shouted and vociferated incessantly; his countenance flushed, eyes inflamed, and his gestures menacing. Had this man been put into a cell, he would have broken whatever he could lay hands on, and given way to the blindest fury. But he worked away, carrying earth in a wheelbarrow with impetuous ardour, and whenever he paused it was to exhale his fury in incoherent speeches, swearing, shouting, but still driving his wheelbarrow. He was the most untiring of the labourers, his delirium spending itself in his great muscular efforts, and to the advancement of a useful work.

This case is a very interesting one, and speaks more strongly than any objections against it; it shows that even maniacal excitement can be employed as a useful instrument, and that its explosions can be brought under the subjection of toilsome and continuous labour, just as the mighty energies of steam are converted into the most manageable power of modern times.

We have now a right to conclude that in future there should be no establishment for the treatment of mental alienation without a farm or an extensive enclosure, to afford the patients an opportunity for active labour. And hence, in our plan of an



asylum, the farm is one of its most essential features; it may be modified in various ways according to the climate, country, and locality; but the object of the farm itself is to form the basis for the most important part of the physical treatment. It is no longer the convalescents solely, or those who at the first dawn of returning reason, manifest the wish for order and employment, but the incurable also; and even the idiotic are to be subjected to this common law. It is quite revolting to see, at the present day, these latter patients still left in a state of stupid inaction; it is high time at last to learn to make use of them, and to turn to account their innate disposition to a servile and routine imitation, in order the more easily to compel them to participate in a state of well-being of which, perhaps, they may not be conscious, but which does honour to our nature.

In our view, therefore, those whom the physician considers capable of manual employment should every morning be divided into separate companies, each under the direction of an attendant, whose duty it is to distribute the work, superintend its execution, and regulate the hours of meals and recreation. As exercise increases the natural appetite of these patients, he is also to see that the food is good, and given at proper intervals; he is to order the cessation of work during the great heats of summer, so as not to allow them to be exposed too long to the action of the sun's rays; and he constantly stimulates them by words of encouragement. After a day of active labour, it may be expected that they will enjoy calm and refreshing sleep throughout the night, and that the mere activity of a life of labour will lead to numerous cures. These are the chief occupations of the male patients; those of the females are more sedentary.

In the Netherlands, at Gheel, Delft, and Beverwyk, the insane from the neighbouring towns are sent to the farmers, who, far from employing restraint in any shape, are wholly ignorant even of the means or instruments which persons think themselves under the necessity of employing for such a purpose in establishments for the insane. Their entire treatment consists in fearlessly making those poor creatures help them in the work of their farms; and the instances of patients escaping are very few. These farmers are wiser than the doctors, and they furnish an example which, perhaps, at some future day will become the only rational treatment of insanity, and which medical men ought to adopt at once. But how few there are that comprehend the power of hygienic regimen! It is much more easy to believe in the infallible efficacy of drugs, and to follow the routine of prescribing medicines internally, than to elevate oneself to the large and philosophical considerations which comprehend all the important modifications which change of air, locality, and regimen stamp on all diseases, and more especially on mental alienation.

It would, however, be unjust not to acknowledge, that in these latter times the treatment of mental affections has in this respect undergone very remarkable ameliorations, and not to notice the names of those physicians who acquired celebrity by their elevated and philanthropic views.

Dr. Schneider considers daily labour, adapted to the strength and inclinations of the patients, one of the conditions essential to cure. According to him, labour alone is capable of preventing them from giving themselves up to that state of vague reverie by which their disease is kept up to the same point, and of making them descend from their imaginary world, where their reason is lost, to the sphere of real life; the subjection to regular occupations necessarily breaks upon the concatenation of their morbid ideas. Jacobi states that the impression made on the minds of patients, by the measure and periodicity of work, restores regularity to the intellectual faculties, and revives the moral sentiments. Neumann lays it down as the chief basis of good treatment, that the insane should be made to provide for all their wants by their own labour, and that the duty of all is to do everything. Horn expresses himself still more strongly; he not only maintains that occupation is the most efficacious remedy for the insane, but that even for the incurable it is an excellent palliative; nay,

more—he insists on resorting to force, to compel them to labour, not even allowing them to choose the kind of work that best suits them. This opinion seems too rigorous; we prefer that of Haslam, Heuroth, Jacobi, Guislaam, and Willis, which recommends the patients to be allowed to choose the occupations with which they are best acquainted, and with which they are most pleased. On this point we quote the opinion of Dr. Bergmann, physician to the fine hospital for the insane at Hildesheim:—"Occupation, in the full sense of the word, restores the intellect to its normal state, and at the same time strengthens both the mind and body; it is the only means of restoring the patient to repose and good humour, and to dispose him to be patient and resigned." M. Nostitz has developed the same ideas, in his description of the establishment at Sonnenstein. In the part of the Hospice of the Charité, at Berlin, devoted to the insane, M. Ideler recommends almost all the patients to saw wood in the open air; he considers this employment as the best of specifics. Mr. Knight, of Lancaster, prefers the wheelbarrow; M. Neumann will only allow gardening; and M. Leopold, only rural labour. We would be more generous, and allow our patients every kind of active occupation that can strengthen or amuse; and we would leave the physician the office of discovering, in the dispositions of his patients, the kind of occupation best adapted for them. Joseph Franck mentions, that, in his own private establishment, Willis was in the habit of preventing his patients from employing themselves at the work they had taken a fancy for since their illness, while he encouraged them, at the same time, to return to that which they liked before their attack: we cannot account for this oddity, which is not founded on any physiological ground. Horn, on the contrary, who is anxious that nothing should remind the patient of the past, compels him to undertake employment with which he is unacquainted, in order, as he says, that everything may appear new and strange to him. These two contradictory opinions so plainly refute each other, that we cannot attach much importance to them. The real difficulty is to occupy the patients according to their habits and inclinations, to vary and suspend their labour, and thus to produce by this succession of physical emotions a most salutary diversion from their habits of delirium.

Thus, in summer, hoeing in the garden, planting, sowing, haymaking, gathering ripe fruits, digging, taking care of flower borders, and keeping the garden in order; and in winter, carpentry, cabinet-making, keeping clean, spinning, knitting, and sewing, form in general the usual occupations at which in an establishment the respective divisions of the males and females are to be employed.

#### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 180.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

Formerly any persons might be placed in a mad-house; subsequently a great improvement took place, and it was wisely ordered that no one should be admitted unless his insanity was certified by two medical men, who had separately visited the patient, and that neither of these should be the proprietor of the house into which such patient was received; and, according to the New Bill, the medical men must now state the reason or ground upon which they have formed their opinions.

According to the provisions of the New Bill, all places in which there are lunatics, whether public or private asylums, gaols, workhouses, or private houses, are to be visited by the Commissioners, to ascertain all necessary particulars respecting the lunatics, and particularly as to whether they are unjustly confined; their report is to be made to the Lord Chancellor.

The medical men who sign the certificates must state the facts upon which their opinion is grounded.

Every medical superintendent is also to keep a medical case book, in which the name, age, residence, condition, and form of disease, are to be entered, and on each separate visit the medical treatment is to be described.

Another important provision of Lord Ashley's Act is the regulation respecting unlicensed houses. No one can now be admitted into such a residence without two medical certificates; and a return of the patient's name, &c., is to be immediately made to the Commissioners; and it is further directed that, in such cases, a medical man shall occasionally visit the patient, and at each visit record in the medical case book the treatment, both moral and medical. And the Commissioners, having the power to visit all places in which lunatics are confined, will direct special attention to this description of house.

The Commissioners are not expected to interfere where a lunatic is under the charge of the Committee appointed by the Lord Chancellor, or where no profit is derived from the charge.

Full powers are given to the Commissioners as to regulating the diet of patients, or their general accommodation; and they may also discharge patients when they consider it proper so to do.

According to this new Act, any person considering himself to have been confined unjustly may apply to the Clerk of the Commissioners, who, without fee, will deliver a copy of the certificates and the order, by which authority he was confined; and, should it be found by the Commissioners that any person has been unjustly confined, the Home Secretary has the power to direct the Attorney-General to prosecute on the part of the Crown.

Licensed houses, containing one hundred patients or more, must have a resident legally-qualified medical attendant; if accommodating less than one hundred and more than fifty patients, a legally-qualified practitioner must visit the house daily; if there be less than fifty patients a medical man must attend twice in every week.

A plan of the house, together with the medical visitation book and the medical case book, are to be placed in some conspicuous part of the establishment.

It is also an important fact that, when anxious to ascertain whether any particular person is or has been under confinement, an application has only to be made to the Commissioners, who will, if they consider it proper, direct their clerk to search and give the required information. The same can also be effected by the order of one of the Visitors, if in his own district.

The Commissioners and the Visitors have also the power to authorize friends or relations to visit any patients, at reasonable hours, with or without restriction.

When patients are placed in a private and unlicensed house, the orders and certificates are kept by the Secretary of the Commissioners "*in the private register*."

The jurisdiction of the Commissioners appears to include a circuit of seven miles around London. A physician and barrister, as Commissioners, must visit, without notice, every licensed house within their jurisdiction, at the least four times in each year; while houses beyond their jurisdiction must be visited twice in every year. Their inspection of every part of the premises, as also of the patients, is expected to be minute, and a report is to be made by them in the "Patients' Book." Their object is not only to inspect the premises, but also the patients, the particular form and system of treatment, the classification, the occupations and amusements, when divine service is performed; to examine the medical case book, and particularly to ascertain whether the orders and certificates are regular; and, after such visit, the Commissioners may enter in "The Patients' Book" such remarks as they consider suitable or necessary.

The powers of the Commissioners are very great, and the act is altogether worthy of the philanthropic nobleman whose name it bears; and a very full and correct analysis of this act has been made by Dr. Winslow, to whose labours I must refer the reader who requires more minute information on this important subject.

[Act 8 and 9 Vict., c. 100. For the Regulation



of the Care and Treatment of Lunatics, with Analysis, by Forbes Winslow, M.D., 1845.]

Much yet remains to be done, and it would be wrong to rest content with what has been already effected. The powers of the Commissioners appear to be sufficiently extensive, as they may enter wherever lunatics are, at whatever hour they please, and as often as they consider necessary; nothing can be fuller, more complete, or more comprehensive. But the error appears to be in the limited number of visiting Commissioners; it is of comparatively little use to invest persons with powers, unless, at the same time, they are prepared and enabled to carry out those powers. Now, suppose the Commissioners just appointed, all of whom are extremely well deserving of such appointment, were each employed *eighteen* hours a day in their official duties, still it would be impossible for them to do the requisite duty efficiently. It is very judicious to have these six paid Commissioners, and most useful and capable they are for framing regulations and for general superintendence; but it is imperatively necessary to have a much larger number of gentlemen appointed by Government, so that, instead of their having to travel "*thousands*" of miles, districts should be more limited; and, instead of the partial and occasional inspections, they should be constant, systematic, and searching.

There can be but little doubt that errors will prevail, however strict the surveillance, *while lunatics can be made the subject of PROFIT; remove this temptation, and you take away the chief source of the evil.* While private asylums are open for the reception of patients, and while the large sums gained by confining their unfortunate and helpless inmates can be realized, dishonesty will exist. It is for the interest of the proprietor to have as many inmates as can pay the required board, and also to detain them in his establishment as long as possible; and there is reason to believe that numbers of persons who have convalesced, lapse into confirmed error, and subsequently become imbecile, because they have been unnecessarily mixed up with others holding more erroneous errors than themselves, and because, when actually recovering, instead of associating with those who are sane, they find themselves surrounded with everything irrational.

When convalescent and requesting to return home, they are refused, and friends even then are often denied them. It would be impossible for me to detail the anguish without, and the despair within!—the friends pining to see their nearest relative; that relative quite conscious, and feeling the ties which bind her to her friends, is wasting her strength, until hope departs, and despair at length weighs her down to the most desponding and depressing melancholy. Friends may now come, but 'tis too late—the thread is broken, the balance is outweighed, she walks in madness. Had hope been kept alive, she might have journeyed on some few months more in distant expectancy; but to her soft appeal, too oft repeated for the rude ears it met, whether she might soon see her mother? the cruel answer of a heartless keeper, disclosed in terms too plain its utter hopelessness, and with one loud shriek her cry goes up to Heaven. Be assured, if so much iniquity, so much vice, so much oppression, so much dishonesty, so much revolting and Augean filth have been proved to exist in lunatic asylums, much greater were these enormities, and much more frequent their recurrence, than those which have been detailed.

All lunatics should be placed under the control of the Lord Chancellor; and if everything connected with the insane, even as to its minutest detail, were subjected to the authority, regulation, or approbation of the high functionary appointed by the Crown, a great improvement would soon take place.

To have lunatic asylums supported by Government, under its immediate control, and with medical officers and attendants receiving their emoluments from the same source, no one connected with the establishment deriving any interest whatever from the patients—here all *temptation* to detain a convalescent, or to receive an improper ease, is at once removed; and, in the event of any irregularity occurring, the officer whose duty it was to

prevent it should be liable to be at once dismissed: this power of dismissal, to a certain extent, explains how all the formalities and punctilios connected with various offices under Government are so rigidly exacted and sustained.

The abuses existing, both in public and in private institutions for the insane, have been but partially known; the difficulty is very great in arriving at a correct detail of all the horrors attending lunatic asylums.

The system of admitting patients, and of mixing them together, even in those asylums where there is the best classification, is very defective; but some establishments can only be considered as "magazines and reservoirs to perpetuate insanity," or "nurseries and manufactories for madness."

There can be no doubt that, owing to the public attention having been strongly directed towards the treatment of lunatics, several of the abuses which were so common are being gradually removed; and those unfortunate creatures whose very helplessness demands increased care, comfort, and sympathy, are not so commonly treated as brute beasts. Indeed, in some of the County Asylums, those patients who formerly slept on straw, now have comfortable flock beds, and their happiness and comfort have been studied in various ways; and the benefits resulting from this change are at once manifest. There is less noise and more personal cleanliness, the patients are more cheerful and much less violent, insubordinate, and destructive, while the attempts at self-destruction, or at escape, have been wonderfully diminished. There is now more confidence placed by the patients in the medical and general attendants; they are no longer regarded as tyrannical enemies, and their instructions and wishes are often at once obeyed with cheerfulness; the consequence of all this is, that while there are fewer deaths, there are more recoveries, and the health of all the patients is materially improved.

Lunatic asylums should no longer resemble gaols; the iron barriers must be removed, and these, together with the handcuffs, manacles, and hobbles, must be melted into lamp-posts, that the light which they will transmit may not only add to the comfort of the patients by night, but will give an additional means of security, by enabling the attendants to see everything that is going on around them. The very fact of nervous and timid persons knowing that outside their rooms, in the corridor, the dreaded darkness and gloom are dispelled by cheerful light, has a very beneficial effect in calming and preventing their fears and apprehensions.

No lunatic asylum should be built except upon the most approved principles, and in which air and light can freely enter: for although, in incipient cases, it may often be necessary to modify the light, or even to partially darken a room, yet, upon the general mass of patients, light is now well known to be of essential benefit.

Buildings for the insane should be specially constructed; the mere adaptation of a house, however large, can never be rendered sufficiently commodious, and the attention of Government should be directed particularly to this subject; indeed the Commissioners have already suggested that houses should be suitable, convenient, and well adapted, to comfortably receive the numbers for which they are licensed, especial care being taken that they are well aired, ventilated, and warmed; also, that the patients should be suitably clothed, and sleep on comfortable beds, in properly furnished rooms; and that the rooms in which they pass the day should be different from those in which they sleep at night; a place being also set apart for exercise during wet weather.

Very properly the Commissioners have attached great importance to exercise and amusements, for, while it is essential that good and proper food should be provided for the patients, it is equally necessary that they should be enabled to enjoy and digest this aliment, which, as is well known, is much encouraged by exercise. The great importance of diet is strongly exemplified by Dr. Thurnham, who states that, in three asylums where it was liberal, the recoveries averaged 43.7 per cent., the mean average of deaths being 9.35 per cent.; whilst in four institutions where the diet was less liberal and

nutritious, the recoveries only averaged 36.75 per cent., and the mean mortality was as high as 14.54 per cent.

Classification is of course of the utmost importance, the greatest care being taken that dangerous lunatics are not mixed up with the placid and contented. The noisy and restless should be put together, and those who are dirty and offensive should be kept apart from those who are clean. It is not only necessary that the dangerous be separated from the quiet, but in some instances they should be kept quite alone; the greatest precaution and surveillance being exercised towards epileptics, who should always be placed by themselves; so those who are desponding only augment each other's depression and melancholy, and may even in this way encourage suicide. It is also very advisable that the young should be kept separate from the old, and never allowed even to see those who are becoming decrepid or imbecile. So, again, those who are educated almost invariably become worse from mixing with the illiterate; and great care should be taken to put those of the same rank and acquirements together.

These few remarks will serve to show the difficulties which have to be overcome in classifying the patients of a large establishment.

An asylum is at present a necessary *evil*, and, as many patients must be congregated under one roof, the greatest judgment will be required to prevent the least possible amount of mischief; and this can only be effected by the most patient investigation and selection, and by the constant supervision of an active, intelligent, responsible, and humane superintendent. Lunatic asylums should be exclusively such: for to admit merely nervous, imbecile, or dejected persons, to associate with lunatics, is to aggravate and confirm their symptoms, and will, indeed, often render them themselves lunatic.

To admit persons as *boarders* into an asylum is so objectionable, and may tend to so many abuses, and to so much iniquity, that it should be treated as a criminal offence, and should be most severely punished.

The insane should never be mixed up with criminal lunatics, who should always be confined in separate buildings by themselves; and as at present they scarcely exceed 250 in number, throughout the whole of England, it might perhaps be advisable to have criminal lunatics all confined in one building; and, as it might be thought somewhat dangerous to place so great a number together, it would be quite practicable so to arrange, without any additional expense to the State, that the barracks necessary for quartering troops should be so near the asylum as that an efficient guard should be always on duty; their assistance would never be required unless the keepers were likely to be overpowered, while the moral effect produced by their contiguity would alone be sufficient to effect the object intended.

#### MEDICO-LEGAL OBSERVATIONS.

Every person is presumed to be of sound mind until the contrary is proved. A sound mind is wholly free from delusion, the perception and comparison is correct, while the propensities, passions and affections are under self-control.

While the liberty of the subject must be protected, yet there are cases where it is a kindness to the patient and to his family to prevent him from ruining himself and them; as when a man executes acts which he, during sane intervals, regrets. Should such a person be allowed constantly to repeat these ruinous indiscretions? Should it not be put out of his power? Is he able and fit, consistently, to exercise civil rights?

A man may be mad medically, but not medicolegally, and many persons have very properly been set at liberty by a jury, when physicians have pronounced them insane: for the point to be ascertained is not as to whether erroneous feelings or ideas exist, but do they *incapacitate*? Has the party sufficient self-control and sufficient self-direction? It is not as to whether mental derangement exists, but does it exist to such an extent as to deprive the alleged lunatic of such a degree of



judgment as is necessary and essential for the management of his own affairs.

The liberty of the subject and the right of property must not be unnecessarily invaded; and it would be of great advantage for the public interest if some more definite rules than those at present existing could be laid down.

It appears that the jurisdiction in lunacy is distinct from the Court of Chancery, though usually delegated by the Monarch to the Keeper of the Great Seal, under a special warrant of the Crown, signed by two of the Ministers of State. It is therefore to be observed, that in a case of lunacy the Lord Chancellor does not act as representing the Court of Chancery, but, by virtue of a special commission from the Crown, takes care of the property for the benefit of the lunatic.

The Crown has the power of taking care of the person and property of a lunatic, subject to an inquisition of lunacy; but a person may also be confined by his relatives or friends.

A petition must be presented, in the first instance, to the person authorized by the Crown to exercise the authority, who, finding it to be a case demanding inquiry, sends it before a jury.

Lord Eldon has laid it down as unquestionable, that the Crown has not in England the power of taking upon itself the care of any individuals, either as to their persons or their property, on the ground that they are of unsound mind, without the verdict of a jury; but the Lord Chancellor can in some cases, where immediate protection is rendered necessary, interfere temporarily, and take care of the person until a jury has decided as to the state of mind.

A Commission should not be granted, nor indeed is it allowed, unless it will be beneficial for a lunatic's mental health and property, as in the case of a lady, who was decidedly lunatic, and who was properly taken care of by her husband, a Commission was refused, as there was nothing in his conduct which was prejudicial to her property or person, and consequently a Commission was considered unnecessary.—*Ex parte Tomlinson and ex parte Broadhurst*, 1 Ves. and Bea. 57. *Shelford*, p. 61.

Where there is disposition of property, insanity or unsoundness of mind is generally decided by a jury. The expenses of a Commission in lunacy are so great that it seems very desirable that in those cases where the property is small, and where *no doubt* whatever exists as to the unsoundness of mind, that the Lord Chancellor should have the power of at once appointing some person, under certain restrictions, and having given security, to manage the lunatic's estate. At present the Lord Chancellor has not this power; many such applications have been made, and have been usually, although not uniformly, refused. In some special cases, insanity or unsoundness of mind has been determined, on affidavit only, by either the Lord Chancellor or by a Master in Chancery.—*P. 35, Shelford on Lunacy*.

As it would be impossible for the Lord Chancellor personally to decide respecting the management of the estate of every lunatic, his Lordship, subsequently to the person being found lunatic by his Commissioners, refers it to a Master in lunacy, who reports. The Lord Chancellor either confirms this report or directs further investigation, or makes such other order as he thinks the case may require.

If any persons are dissatisfied with the Master's report, they may state their objections in writing, and lay it before the Master, and, after it has been settled by the Master, the parties objecting can, by petition, bring it before the Lord Chancellor. Any further appeal must be made to the Queen in Council.

A lunatic means an insane person, whether idiotic, lunatic, or of unsound mind. Idiocy never can be mistaken: respecting it the law is clear. Lunacy plainly refers to those who were once of sound mind, and now possess the power of reasoning, but on imaginary or false principles; it is not so evident what is meant by unsoundness of mind, but it probably means an imbecility sufficiently great as to prevent the individual from managing his own affairs. Madness is a total alienation of mind.

The cases which come prominently before the

public are almost invariably those where there is great doubt and considerable difficulty in deciding whether the person is or is not of unsound mind. Where the symptoms are so demonstrative that a jury at once decides, the case occasions no interest; but where the alleged lunatic exhibits a good memory, estimates well, in many respects, the various relations of things to each other, and is even subtle and acute, the case is more perplexing, and often occasions considerable public indignation. But, in addition to these qualities, a man may even reason well, yet upon false premises; he mistakes fancies for realities, the imagination overpowers reality and fact; he is hallucinated. Now, the great point to determine is, whether such hallucination prejudices his own safety or that of others; if so, he must be put under some degree of restraint; but, no such danger existing, then the next inquiry should be, does such hallucination prejudice his interest or the interests of his family, more particularly of his wife or children? If not, to interfere with him in any way is unjust, inequitable. A man may hold very erroneous opinions upon politics or religion, may entertain very absurd ideas respecting himself or others, and yet may manage his estate with the greatest circumspection and prudence.

Perfect capacity, legally defined, means a person of sound mind, memory, and understanding, who can talk rationally and sensibly, and is capable of any rational act requiring thought, judgment, and reflection. An unsound mind is generally characterized by delusion; idealities being mistaken for realities, with a perversion of the moral and social feelings. It is a mistake to suppose that the true criterion or test of insanity is *delusion*, for in moral insanity the patient does not conceive something to exist which has no existence; it is quite true in many, nay, in most, cases of insanity, there is *delusion*—which is so called when a patient cannot be permanently reasoned out of a false idea or conception, which of itself is so irrational that no rational person could believe it.

"Where there is delusion of mind there is insanity—that is when persons believe things to exist which exist only, or at least in that degree exist only, in their own imagination, and of the non-existence of which neither argument nor proof can convince them, they are of unsound mind; or, as one of the counsel accurately expressed it, it is only the belief of facts which no rational person would have believed."

In many cases the most important proof of insanity is the extraordinary *change* which has occurred; particular acts, however indiscreet in some persons, are habitual, and form nothing more than the daily routine, whereas the same occurring in others would at once indicate the insane condition; it is, therefore, necessary and essential to compare the present with the past.

Insanity should generally be considered such from repeated errors or indiscretions, and not from one error or indiscretion only; but, when a person has once been proved insane, acts which would otherwise have been doubtful acquire more force, as affording proofs of insanity.

There is no discretionary power where a person is merely extravagant and ridiculous; but in a legal inquiry the question is, can the person manage his own affairs, or is he unsafe to himself or to others?

A person of merely weak understanding is considered competent to perform civil acts; legally, he must be either *compos mentis* or *non compos mentis*, and therefore, unless he is proved unsound, he may exercise civil rights, there being no such thing as an equitable incapacity where there is a legal capacity.

Where capacity ends and incapacity begins depends upon the individual merits and peculiarities of each case, and must as such, where there is doubt, be decided by a jury. It demands neither legal nor medical sense to determine the question, although, in some cases, either or both may occasionally aid in the decision; but common sense almost invariably enables a jury to find a sound, discreet, and honest verdict. The object of a jury is to decide whether a person is competent or incompetent to manage his affairs, and wit-

nesses are generally produced on both sides. Some will state they have long known the person in question, and consider him decidedly imbecile; and on the other side they may say how highly qualified he is, being a good scholar, attentive to his own interest, and they consider him a man of ordinary understanding. It should be remembered that a man may be learned, may be able to answer questions well, and yet be incompetent upon a point of great consequence where he represents an estate. If, for instance, he cannot perform the most simple process of arithmetic, and cannot tell the difference between one shilling and twenty pence, or between the years 1810 and 1834, it is not likely such a man can judge whether his estates are or are not managed with honesty and prudence; or, supposing the heir to an estate, when of age, to be asked if a silver watch cost £4 and a gold watch £40, what is the difference? and we received for reply £4—and that no effort of the mind, and *no proof*, could convince him that the difference was £36, and not £4, can such a person be considered competent? As a labourer he might be competent, and might till the ground with more physical force than a first-rate mathematician; but, supposing such a person to be the heir to a large estate, I cannot believe it would be right to allow him to be exposed to be plundered by any of the numerous harpies who are always looking out for victims. But because I think him unfit to manage his own affairs, or rather his own estate, is it supposed I think he ought to be locked up in a madhouse, or be fettered and bound at home, and treated as some irrational brute, rather than as a man merely ignorant, weakened, or imbecile upon some particular point? No, it having been found that he was incompetent, he should receive that degree of control which the Lord Chancellor might consider adapted to the case; this might in some instances be so slight as merely to require that all deeds executed by the individual in question should receive his Lordship's approval, or in other cases, where there was violence and danger, these might necessitate actual confinement: the degree of incompetency regulating the degree of control or surveillance.

While "*compos mentis*" legally means one in his senses, "*non compos mentis*" signifies one out of his senses. *Unsoundness of mind*, according to Lord Hardwicke, means not weakness of understanding, but a total deprivation of sense, thereby considering it equivalent with the term *non compos mentis*, it being a depravity of reason, or want of it, and not mere weakness of mind.

Lord Eldon says, "Of late the question has not been whether the party is insane, but the Court has thought itself authorized to issue the *Commission de lunatico inquirendo*, provided it is made out that the party is unable to act with any proper or provident management, liable to be robbed by any one, under imbecility of mind, not strictly insanity, but, as to the mischief, calling for as much protection as actual insanity."—*8 Vesey's Rep.* 67, *Ridgway v. Darwin*.

So that Lord Hardwicke held that "unsound mind" meant an insane lunatic, while Lord Eldon subsequently understood by it an intermediate state between idiocy and lunacy, this imbecility rendering a person a fit object for a Commission of lunacy. So that, since Lord Hardwicke's time, Commissions in the nature of those of lunacy are now applied to cases where there is such an imbecility of mind as renders a person incompetent to the management of his own affairs, or liable to be imposed on.—*Ex parte Cranmer*, 12 Ves., pp. 445-447.

The proper return to such a Commission is "that the party is of unsound mind, so that he is not sufficient for the government of himself;" and a return "that he is so debilitated as to be incapable of the general management of his affairs," being too loose, was quashed, and a new Commission issued.

Imbecility and incapacity are not sufficient by themselves unless the party be of unsound mind, and the jury find him to be so.—*Coven's Rep.*, vol. 4, p. 207.

Incompetence of figures, as decided by Lord Hardwicke, is not evidence of lunacy; and we find, *Sherwood v. Sanderson*, that Kitty Sherwood's was a case of mere imbecility, proceeding from epilepsy,



not connected with idiocy or lunacy. This lady answered questions on every subject except figures, and the jury were satisfied that, even upon that subject in which she was defective, her mind was capable of improvement.—*Ves. Rep.*, vol. 19, p. 282.

So in Lord Donegal's case, in 1750, a Commission of lunacy was refused, because merely of weak understanding and imbecile mind. The alleged lunatic answered many questions in court very rationally, but could not respond to the most common queries respecting figures. Lord Chancellor Hardwicke did not consider this a sufficient foundation to grant a Commission.

A new Commission was applied for in June, 1751, and a new inspection ordered, and on April 22, 1752, the Lord Chancellor said—"In the present case I allow Lord Donegal is of very weak understanding, and of no resolution of mind; but that is not sufficient for me whereon to ground a Commission. If I was to grant any, it must be that of idiocy, for no time is mentioned when he was of better understanding." And it appeared that the extent of Lord Donegal's estates did not alter the question: his Lordship stating, "that fraud and imposition upon weakness is a sufficient ground to set aside a will of real, much more of personal, estate, and yet such weakness is not sufficient to ground a Commission. There was a case in Lord Harcourt's time, where, though one could not be proved a lunatic, yet, from the imposition upon his weakness, this court relieved against a deed obtained from him; immediately after the decree, the grantee in this deed got a release of the decree from him; against this also the court relieved; and I have heard it said, that Lord Harcourt ordered that he should not execute any future deed, but with consent of the court. It may be very difficult to draw the line between such weakness which is the proper object of relief in this court, and such as amounts to insanity; however, the denying a Commission does not exclude from relief against any deeds or wills which may be improperly obtained."—*Ves. Sen. Rep. by Bell*, vol. 2, p. 407.

So that the imbecility to answer even the most simple questions of arithmetic, as in Lord Donegal's case, was considered no foundation for granting a Commission; but Lord Eldon could not understand what was intended by his predecessors when they considered that the want of power to comprehend the most simple proposition of figures was no evidence of an unsound state of mind.—*Sherwood v. Sanderson*, 19 *Ves.* 286.

If the attention cannot be fixed, if the memory is so defective that the most ordinary occurrences and facts cannot be remembered, if there is such an incomprehension of figures that a person cannot tell that two and two make four, or cannot discern the difference between £3 or £40, how can such an individual be considered capable or competent to manage his affairs? His butler might daily abstract £37, leaving his deluded but contented master with £3; or his steward could appropriate £2,000, and as easily in some instances ten times that amount, without his principal detecting this dishonesty: for how can an individual who cannot see, or, even when shown, cannot perceive, the difference between one shilling and twenty pence—how can such a person be presumed to know the difference between 12 or £20,000? Surely in such a case no doubt can exist as to the undoubted incompetency of such a person to manage his own affairs; but, because unequal to manage his own estate, that is no reason why he is to be confined or be shut up. Such a person may be so placed as to enjoy life exceedingly; and to prevent such happiness, or unnecessarily to cause uneasiness or discontent, should be treated as a criminal offence.

(To be continued.)

## DUMAS ON ORGANIC CHEMISTRY. No. III.

### THE NUTRITION OF PLANTS.

(Continued from page 102.)

Nitrogen is introduced into plants in two ways: 1st, by the air; 2nd, by manures.

In experimenting on the growth of peas in a closed vessel, we have seen that they abstract

nitrogen from the air. Clover, and also some kinds of artichoke, when cultivated under nearly similar circumstances, present an analogous action. But, if the experiment be repeated upon other plants, this phenomenon is no longer observed: the cereals, for instance, do not abstract nitrogen from the air. Under this aspect, plants may be divided into two distinct groups.

1st. Those that appropriate nitrogen from the atmosphere: as peas, clover, artichokes, &c.

2nd. Those which take it from manures: as the cereals and oleaginous plants.

Although we know that the nitrogen in plants may be borrowed from the air, still we are completely ignorant of the attendant circumstances, and of the state in which it becomes fixed in the plant. It may be supposed that it enters directly into their organs, some of their parts being naturally adapted to absorb or appropriate it directly from the air. It may also be conveyed to them by the water (always aerated) which is sucked up by their roots. It is, perhaps, converted into ammonia, in the leaves of the plants, by combination with the hydrogen of the water which is decomposed by them. Finally, according to the experiments of M. de Saussure, this fixed nitrogen is derived, in part certainly, from the traces of ammonia contained in the air.

If doubts should still exist on this subject—doubts which experience must soon dissipate—it is otherwise with regard to those plants which derive their nitrogen through the medium of manures. The activity of the manure lies in the urica, the uric acid, and animal matters, which, undergoing decomposition, are transformed into ammoniacal salts. This has been experimentally shown by M. Schattenmann, of Bouxvilliers. He observed that, in manuring a field with a solution of sulphate of ammonia, derived from horsedung acted on by sulphate of iron, those portions which were manured were distinguishable from the parts not so treated, by the vigour of the plants. The course of the manure was plainly marked during the whole process of vegetation. The importance of this fact for agricultural purposes is very evident. In some countries this plan had already been adopted in practice, although its theory was not understood. In the *Canton des Grisons*, for instance, the liquid manure is treated by sulphate of iron; the ammonia, which is developed, decomposes the sulphate of iron, and forms a sulphate of ammonia, which is thus prevented passing off in the air. In other places the urine or liquid manure is mixed with sulphate of lime, which has the same effect of fixing the ammonia. It would, however, be useless to employ sulphate of lime to fix the ammonia in matters exposed to desiccation; for then we should have reproduced a carbonate of ammonia—a substance of a most volatile character. Hence the failure of all attempts to suppress the ammoniacal odour found in stables by means of sprinkling with sulphate of lime.

The researches of MM. Boussingault and Payen have, on the one hand, placed beyond all doubt the influence of ammoniacal salts as manures in vegetation; and, on the other, they have shown the full advantage derived from the employment of animal, or more generally of nitrogenized, matters as manures for land. In a recent work, they have shown that all manures act in proportion to the quantity of nitrogen they contain. Consequently they have proposed, and with good show of reason, to rank manures according to their strength in nitrogen—a plan which they have adopted in the following table. This table, moreover, shows that 100 parts of farmyard dung are merely equivalent to three of dried blood or animal residue, and to twenty-five of grape husks, &c. The chief equivalents of this species are as follows:—

Farmyard manure	100 parts.
Seaweed	50 "
Oilcake	8 "
Grape husks	25 "
Refuse liquor from distilleries, &c.	600 "
Liquid manure	70 "

Pigeons' dung	3 parts.
Flemish liquid manure	200 "
Dung reduced to powder	10 to 25 "
Dried blood or flesh, feathers, cow's horns, hair, &c.	3 "
Animalized refuse or black	40 "

I have, on various occasions, directed attention to the beneficial effects of urine on vegetation, so that it will be unnecessary to insist any further on the care which the agriculturist ought to take in collecting this fluid. The foregoing table does not, however, give the most just ideas, if we bear in mind that, in the preparation of the Flemish manure, none of the products of the night-soil are lost; and the same may be said as regards the animalized refuse or black. Consequently, although the powdered manure may present a superior value in equal weight, this does not prove it to be preferable for employment on a large scale. During its preparation, in fact, a very large proportion of useful products is lost in the atmosphere, which is, moreover, poisoned by it. The advantages of the liquid manure cannot be too strongly urged; we will sum them up in a few words:—1. Man gives to the air carbonic acid and water—substances which the agriculturist will always be sure to find there over and above his wants. 2. Man rejects by the urine and the excrements, which, after undergoing a species of fermentation, constitute the liquid manure, all the other products of his alimentation. 3. Consequently, with the liquid manure and the air, the agriculturist must have at his disposal the materials necessary to the vegetation of those plants most suitable to the alimentation of man. The excrements of animals, which constitute the food of the most useful plants, such as the cereals, are as necessary to them as bread or meat are to man himself. Hence it becomes a matter of astonishment that so little care should be used in the collection and employment of the sewage in most large towns. Among the efforts which it is our duty to make towards relieving the misery of the poorer classes, that of bringing the price of provisions more within their reach should surely occupy a foremost rank with every good government; and what means more likely to effect this than by increasing our crops by a fruitful employment of the sewage of our towns?

I shall conclude this subject with one more observation. We know with what facility ammonia is dissolved in water, which takes up about 430 times its volume of this gas; we know also that hydrochloric acid is endowed with a similar solubility. But observe the different actions of these two solutions. On applying heat to hydrochloric acid of a certain density, it boils at 118 deg. (Cent.), without undergoing any alteration, and it is impossible to separate it from its water by any physical means. Water, on the other hand, at a temperature of 50 deg. or 60 deg., does not retain a trace of ammonia; even at the ordinary temperature, if placed *in vacuo*, it loses all its gas; and in like manner it parts with it to the air in open vessels. This property of ammonia is, in the economy of creation, a matter of great importance: for it is by this means that it is condensed by the rains which carry it to the plants, and, if not seized and appropriated at the instant by them, that it is again volatilised and transported elsewhere. But, inasmuch as this property is necessary, in a creative point of view, to prevent the ammonia, which is required by vegetation, being totally lost to it, so is it proportionably injurious in another, though a more limited, aspect. It is precisely this volatility of the ammonia, resulting from the decomposition of the animal refuse of our towns, that is the cause of the surrounding land being robbed of that amount of manure which it might receive, and which the soil requires to enable it to yield a fruitful crop. Let us, then, endeavour to render more available those azotized products which we reject, and which we have been accustomed to regard as waste; let us imitate nature by applying them to their proper use, instead of leaving them to be carried off by the air, or washed away by our rivers and lost in the immensity of the sea.



We will now turn to another branch of our subject, namely—

*The Phenomena of Combustion in Organized Beings.*

The green parts of plants, being struck by the solar ray, have the property of decomposing carbonic acid and water, and disengaging oxygen by fixing the carbon and hydrogen. But, during certain periods of development in the plant, these relations towards the air are altogether reversed: and I may here remark, that the phenomena, which we are now going to consider, will form a natural transition to the study of respiration in animals.

During germination, the season of flowering and fecundation, the phenomena of respiration in the plant are totally modified: its function is no longer that of a reducing apparatus, but, by burning carbon and hydrogen, it produces carbonic acid and water; it has completely changed its character, and performs the same function, in regard to the air, as an animal. The following experiment shows this in the clearest manner:—Subject a flower, under a glass bell, to the action of the air and the light, and we shall see that the enclosed air will quickly produce a marked cloudiness in lime-water, with which it is placed in contact; this result will even be appreciable, although we place the plant in the shade, and carefully remove its green parts: for, notwithstanding the quantity of oxygen which these parts have the power of setting at liberty, we shall find the experiment sufficiently conclusive.

The production of carbonic acid is easily proved. Not so, however, when, comparing the plant to the animal, we wish to ascertain, experimentally, whether the production of carbonic acid and water, which is accomplished in the flowers, has been accompanied by a development of heat. These observations are indeed, in most cases, very difficult. Still, this property has lately been proved, and that very conclusively, in large flowers, as in the genus *arum*, and in most plants of the family *aroides*. This remarkable phenomenon was observed for the first time by Lamarck, in 1777, on the *arum italicum*. Sennebler likewise noticed it in a plant, very common in our climates, the *arum maculatum*. More recently, Hubert, in the isle of Bourbon, found the *spadix* of the *arum cordifolium* become elevated from 20 deg. to 25 deg. above the surrounding temperature.

It is with this latter plant, which is now known under the name of *colocasia odora*, that M. A. Brongniart, and also MM. Vrolik and Vriese, of Amsterdam, have recently performed their experiments. M. Brongniart discovered the remarkable fact, that the temperature of the flower becomes daily elevated, by a sort of fever or paroxysm, far above that of the surrounding atmosphere; the maximum takes place at first between noon and 4 P.M.; at a more advanced stage it occurs in the forenoon. The flower may present an excess of 10 or 12 deg. above the temperature of the atmosphere. From the opening of the spathe until its complete extinction, which takes place in six days time, the flower daily presents the same phenomena, and almost in the same intensity. While confirming these observations of M. Brongniart, the Dutch savans have added some valuable remarks of their own, and which render the study of these curious phenomena complete. They have proved that the temperature of the flower, which is so greatly elevated in the air, rises in equal proportion in oxygen; but that, in nitrogen, nothing of the kind takes place. They have also ascertained that, in proportion as the temperature of the flower is elevated, so is there a corresponding formation of carbonic acid; that the production of this acid is invariably proportionate to the increase of temperature. In one word, they have demonstrated, in this action, all the characters of true combustion, and they do not hesitate to characterize it by that name. We may therefore affirm that, in the *colocasia odora*, there is daily, during fecundation, a considerable increase of temperature, determined by the combustion of carbon; and, as a consequence, we have the formation of a large quantity of carbonic

acid, as well as the development of a strong odour which appears to be allied to this phenomenon of combustion. These observations have, in their most essential characters, been recently confirmed by M. Dutochet, through the medium of his thermo-electric apparatus.

What we have just said of the flower may be almost literally repeated as regards the fruit. When the fruit begins to ripen—when it changes its green colour for that peculiar to it during its maturation—carbonic acid is given off, and that up to the period of its decomposition. This property in fruits is easily proved by experiment; only, the phenomenon takes a rather long time to produce. The same effect is presented during germination. If we place some grains of barley in contact with moist air, in a small tube, we shall see them quickly germinate. By examining the gaseous products given off after the appearance of the plumules, but before the complete development of the leaves, we shall readily discover the presence of carbonic acid. This explains what takes place in the brewer's mash-tub: if the place be not well arranged, and the air be not constantly renewed, so much carbonic acid will be eventually liberated as to produce asphyxia in those around; a lamentable circumstance of which kind occurred in a brewery in Paris, some years ago. Tubercles, also, present the same phenomena during their germination.

We have shown that the plant, under all these circumstances, burns carbon and hydrogen. The most simple experiments leave no doubt as to the production of carbonic acid; with a few precautions, it may be proved, at the same time, that it is burnt with hydrogen. Analyses cannot, in this respect, be conducted too rigorously. Now, if we analyse some grains before germination, and repeat the same experiment after this stage has been accomplished, the comparative examination of results leaves no doubt on this head.

This is precisely the plan M. Boussingault adopted. The following are the results he obtained:—

	Car- bon.	Hydro- gen.	Nitro- gen.	Oxy- gen.
1,000 parts of the grain of clover, containing ..	508	60	72	360
were reduced by germination to 932 parts, containing ..	480	59	74	319
and, after the development of the seminal leaves, to 833 parts, containing ..	391	50	72	317

We see from the above that, making allowance for all possible errors in the experiment, the grain of clover, in germinating, at first loses carbon and oxygen, and afterwards carbon and hydrogen.

	Car- bon.	Hydro- gen.	Nitro- gen.	Oxy- gen.
1,000 parts of grain of wheat, containing ..	466	58	35	441
were reduced after the appearance of the radicles to 974 parts, containing ..	458	57	36	423
and when the stalks had acquired the length of grains to 966 parts, containing ..	439	57	36	434
lastly, when the green parts prevailed, to 841 parts, containing ..	397	51	36	357

The result is, consequently, a loss of carbon, of hydrogen, and of oxygen; the consumption of carbon, however, is most predominant.

#### NOTICES OF BRAZILIAN MEDICAL JOURNALISM.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio Janeiro, and Member of and late Honorary Secretary to the Parisian Medical Society, &c.

In the 4th number of the current volume of the "Arquivo-Medico Brasileiro," Dr. Freire Allemão, Professor of Botany in the Rio School of Medicine, publishes a description of the *Paó Pereira*, which he, for the first time, satisfactorily classifies and names, as I have already mentioned in No. 5 of my *Clinical Notes*, lately forwarded for publication in the *Medical Times*. In the same number are related several cases of incised wounds of the peritoneum, occurring in Rio de Janeiro, and, despite the super-vention of peritonitis, successfully treated in the General Civil Hospital of that city.

In the succeeding numbers, up to No. 9, which appeared in May last, no original articles appear worthy of special notice; in this number, however, are three: one, by Dr. Camargo, on a chemical theory of tetanus as dependent on the presence of a peculiar acid in the system, which he supports by, among other arguments, the acknowledged efficacy of ammonia in this disease; another, on the preparation of ergotine; and a third, a case of arsenical poisoning, treated with success by the peroxide of iron. These two last articles I shall briefly analyse.

The former is signed only with the initials of the author's name, and from them, and from an incidental remark in the text, I presume it to be by a very talented Italian physician, Dr. Ignatius Achilles Emile Betola, now resident in Porto Felice, in the interior of this province, and the point where travellers and merchandise embark on the River Tieté, on their way to Cuyaba and the base of the Andes. After stating his objections to the plan of M. Bonjean for extracting the ergotine, he gives the following process:—"Having pulverised one pound of ergot of rye, I let it boil in six pounds of water, to which two ounces of lime had been previously added: after letting it boil for one hour, I strained the decoction, and to the residuum added one ounce of lime, and fresh water: this was allowed to boil and strain as the first portion. As the residuum was still bitter, I repeated the same operation a third time, after which the residuum remained quite devoid of taste. I then mixed the several decoctions, clarified with white of egg, and concentrated to the consistence of syrup. In this state the extract contains a little mucilage, which may be removed by treating it with alcohol or sulphuric ether. The therapeutic virtues of the ergotine not being affected by the presence of mucilage, and this being in so small a quantity as not to affect the strength of the preparation in an appreciable manner, the syrup above mentioned may be at once evaporated to the consistence of extract, without undergoing any process to remove its mucilage. While M. Bonjean affirms to have obtained by his process 17½ to 20 drachms of ergotine per pound of ergot (a result I could not succeed in producing in my repetitions of his process), I, by the process now described, obtained 26 drachms from one pound of ergot."

The theory of this process is simple: the heat of the boiling water breaks the cells in which the ergotine is contained, or at least breaks a greater number than mere pulverisation. The oil and resinous matter combining with the oxide of calcium form an insoluble soap, and are thus separated from that part of the ergot which has a medicinal application. The oxide of calcium, which the water dissolves, passes during the boiling to the condition of a carbonate, which appears as a pellicle on the surface, and may be then removed, or, when becoming intermingled with the decoction, is afterwards removed by the white of egg. The ergotine thus obtained, when treated with sulphuric ether, does not afford a trace of oil of ergot. Dr. Betola, in closing the article, emits the opinion that ergot might be made to yield still more of its medicinal principle, were it boiled first in a Papin's digester, and afterwards in the ordinary way with lime. The difference between this formula and that of Bonjean I do not give, as any of the readers of the *Medical Times*, interested in the subject, can easily inform themselves fully on this point, by a reference to any recent pharmacological publication which contains Bonjean's formula.

The case of poisoning by arsenious acid is given by Dr. De Noronha Feital, a physician of credit, in Rio de Janeiro. The subject of it, a negress, swallowed half an ounce of white arsenic at 3 P.M.; and at 7 P.M. was first seen by Dr. Feital, presenting, in a marked degree, the irritative gastric and nervous symptoms characterizing arsenical poisoning. No vomiting had as yet occurred, nor had any effectual treatment been adopted, beyond the administration of white of eggs; Dr. Feital first ordered the use of ipecacuanha in half-drachm doses, until very full vomiting should be produced; thirty-six leeches to the epigastric region; large sinapisms to the superior and inferior extremities; and tepid baths. As soon as the patient was freely emetized, Dr. Feital prescribed the hydrated oxide of iron;



but, there being none of this in the vicinity, the apothecary was directed to substitute the ordinary dry peroxide of iron, of which one small spoonful was given every hour in a gumrose liquid. This was continued for twelve hours, when the alarming symptoms had subsided, leaving the patient weak and prostrated, and with considerable sensibility in the epigastrium, tongue red, &c. The treatment was now directed solely against this gastric irritation, and with such facility did it yield, that on the sixth day the patient was on foot and free from all suffering. From the state of the patient when Dr. Feital first saw her, there could be no doubt that some absorption of the arsenic had occurred, and the operation of the iron, in relieving and subduing the consequent dynamic symptoms, was most evident, as the result showed fully satisfactory.

The constant burden of the *feuilletons* of this journal, in the recent numbers, is the condition and progress of quackery in Rio. The Academy of Medicine has at last been aroused from its customary apathy, and has addressed an expostulation to the Government on the subject, whose intervention it is to be hoped will be obtained. The homœopaths have now established a school in Rio, where their doctrines are taught to a few needy and lucre-hunting individuals, who procure a short and easy way to enrich themselves at the expense of their fellow-creatures' simplicity. A recent fact, which is most expressive of the nature of charlatanism, is, that no pupil of the legal School of Medicine is now allowed to enter the homœopathic lecture-room; nor, indeed, any other individual who does not PREVIOUSLY bind himself by oath never to treat disease according to any other than the homœopathic system. Unfortunately, as the leading homœopaths, though men devoid of all ideas of morality and decency, are in the possession of medical diplomas or degrees, no effectual suppression of homœopathy can, under our present legislation, be hoped for. Much sensation was lately caused in Rio, by the attempted assassination of a physician who had distinguished himself as a writer against homœopathy, and whose life was sought in vengeance (as it was supposed) by some satellite of the arch-socialist and homœopathist DOCTOR MURE. As homœopathy in Brazil has found a freer field of action than in Europe, it has been encouraged to assume a bolder tone and a more hostile attitude than hitherto, and so its true aims are here more unmasked, and, consequently, it has an aspect more repugnant to persons of correct judgment and moral feeling; and, whatever may be the result of the contest in this country, between legitimate physic and quackery, the conductors of the "Arquivo Medico Brasileiro," will, at least, be able to enjoy the consciousness of having deserved the approving sympathy of their colleagues in every land where our science has a home.

City of Campinas, Province of San Paulo,  
Brazil, July, 1846.

#### ON OVARIAN DROPSY, AND ITS TREATMENT BY PRESSURE, &c.

By ISAAC B. BROWN, Esq.,  
Consulting Surgeon to the Paddington Lying-in Charity, &c.

[To the Editor of the Medical Times.]

In the *Lancet* of May, 1844, I first brought before the profession the treatment of ovarian dropsy, by pressure, &c. Subsequently I published other cases of cure, by the same plan; and Mr. Wm. Hunt, of Herne Bay, also published a case of cure by the same plan of treatment. I was not, therefore, a little gratified to find in that journal of Nov. 7, another case as related by Mr. Lloyd.

Feeling assured that time and experience alone are wanting, to establish this treatment as a recognised plan, by the great body of our profession, and knowing that facts are more convincing than any arguments, I now place before the readers of the *Medical Times* another case, about which I apprehend there can be no doubt; and, consequently, I shall not be met with the assertion, that the disease was doubtful and not well attested.

I shall not, at this time, enter more fully into the objections still urged against my plan; but

shall take an early opportunity of bringing before the profession many cases, which have come under my notice; the failure of some, the success of others, and the causes which I believe have regulated the results of all—accompanied by some general practical observations and suggestions; and I think the result will prove that this plan is as free from danger, and as successful in its cases, as any other mode yet brought forward for the cure of ovarian dropsy.

Dec. 18, 1845. Mrs. D., residing in Market-street, Edgware-road, consulted me, and gave the following history of her case:—That four years since, she found her body enlarged on the left side, that it gradually increased, and she accordingly consulted Mr. C., who pronounced her pregnant. But as she gradually increased for two years, and was regular in menstruation during that period, she determined to consult Dr. Hamilton Roe, who prescribed a course of treatment, from which she derived no benefit. Subsequently she saw Dr. Murphy, who also directed a course of medicine, and told her it was "dropsy in a tumour"; and, shortly afterwards, she saw Dr. F. Bird, who said it was ovarian dropsy, and was a most favourable case for his operation, and placed her under preparatory treatment for the operation.

When I first saw her, I found her suffering from incessant vomiting, great dyspnoea, and profuse menorrhagia. According to her own account, as well as that of her nurse, she had lost many quarts of blood; her lips were blanched, face emaciated, indeed her whole body was frightfully attenuated. On examination I found the cyst apparently thin, fluctuation distinct, and no hardened tumours attached to it; she measured around the cyst forty-seven inches. On examining *per vaginam*, I found the uterus inverted; the fundus pressing downwards, and filling up the entrance of the vagina; and the os turned upwards, with its edges enlarged and roughened. I ordered gentle mercurial friction, flannel bandages, and the usual diuretic mixture.

20. I tapped her in the presence of two medical friends, by introducing the trocar in the semilunar line, the patient remaining in the recumbent posture, the incessant sickness and great exhaustion rendering it dangerous to place her in the upright posture; I gradually drew off twenty-four pints of clear and slightly albuminous fluid, the patient expressing the greatest relief. I applied bandages and compresses in the usual way, gave her some wine and water, a pill, with blue pill and opium, and ordered the diuretic mixture to be continued; the gums being very slightly affected, in her reduced state I did not think it advisable to push the mercury further.

21. Kidneys acting very freely; three pints more urine passed than the quantity of fluid drunk.

22. Bowels not having been relieved, gave her ten grains of ox-gall.

23. Bowels having been violently purged by the ox-gall, to take port wine and arrow-root.

24. Bowels still acting too much, to take some chalk mixture; kidneys acting very freely.

25. The patient expresses herself as feeling much better.

28. Menstruation came on naturally, and progressed as usual, without excess.

Jan. 2. Removed the bandages for the first time, and reapplied them; no appearance of fluid; the patient is gradually recovering her strength and flesh, and is altogether looking better; the quantity of urine passed exceeds daily the quantity drunk by more than two pints; ordered her steel and sarsaparilla.

10. Has gradually progressed; sits up daily; the kidneys still act freely, and the cyst is not refilling.

18. Removed the bandages and carefully examined the body; could feel the collapsed cyst resting on the pelvis; reapplied the bandages; the kidneys are still acting freely, and she is daily gaining strength.

Feb. 10. Dr. Locock saw her with me, and carefully examined the body, and could feel the collapsed cyst, but no fluid. Mr. Guthrie subsequently saw her with me, and considered her cured. Dr.

Frederick Bird also called with some friend of his own, and carefully examined her, but could detect no return of fluid, although, he said, he thought it would return very shortly, at least this is what I heard from the patient herself; but as Dr. F. Bird did not communicate with me before seeing the patient, although she was still under my care, I cannot state positively what was his opinion.

March 23. Mr. Lane saw her and carefully examined her, and said she appeared so well that he should not have known she had had the disease; he could detect no trace of the cyst, and the patient described her sensations as if the cyst were gradually drying up.

1846. In August I was sent for suddenly; I found her flooding most profusely, and, on carefully examining what passed, I found she had miscarried, being ten weeks pregnant; this reduced her greatly, and she has now a discharge of a muco-sanguineous character, probably arising from disease of the uterus; but, as she will not consent to an examination *per vaginam*, I cannot state its nature; there is, however, no reaccumulation of the fluid, and it is now twelve months since she was tapped.

Oxford-square, Hyde-park, Dec. 9.

#### ON A NEW METHOD OF TREATING UTERINE HEMORRHAGE.

By THOMAS R. TORBOCK, M.D., Surgeon.

The subject of uterine hemorrhage has of late attracted considerable attention, and very properly so, when we consider how frequently and suddenly a fellow-mortal is plunged into eternity by such an untoward event, notwithstanding the most prompt endeavours, energy, and skill have been called into operation to avert so distressing a calamity. We are aware that from the earliest periods, various methods have been devised, such as plugging, pressure, more especially that of the abdominal aorta, recommended by M. Sentin, and others; the ergot; cold; the introduction of the hand into the uterine cavity; and, latterly, the employment of that powerful agent, galvanism, as employed by Dr. Radford. Notwithstanding, these several means have alike failed in extreme cases. "I am thus satisfied," says Dr. Radford, that by the application of this means (galvanism), we can induce such a state of chronic contraction in the uterus, that, in these extreme cases of exhaustion from hemorrhage, the woman may be placed in such a state of safety," &c. "Moreover," continues this distinguished practitioner, "with regard to the after-hemorrhages, especially those attended by extreme exhaustion, I consider it particularly applicable where atony of the uterus is the principal feature of the accident." With the several observations made by him in respect to obstetricians being fully prepared for any and, indeed, every emergency, I must beg leave respectfully to differ. "No gentleman," says Dr. Radford, "who possesses the principles of a correct practitioner, would carry his forceps, vectis, &c.; indeed, the same remarks apply to the galvanic apparatus: they must be sent for in emergencies only." The old and useful adage, "Delays are dangerous," may very properly be applied to very many cases which occur in rural districts, where the patient is distant from the medical attendant, not unfrequently eight or ten miles; it is evident, from this circumstance alone, there are exceptions to the general rule, and, in my humble opinion, it is better to be prepared for all cases of emergency: this precaution I have myself taken during a practice of at least twenty-three years, and have had no reason to regret such a procedure. I wish more particularly, however, to confine my present remarks to the treatment of those cases of uterine hemorrhage that are attended with danger, *after delivery*, and which require the greatest promptitude, and admit of no delay in respect to the means used for the saving of the patient. It is, therefore, essentially necessary they should be at hand, and not "to be sent for in such cases of emergency." The novelty of the plan I have adopted, and the therapeutical agents employed, may, at the first glance, startle some, and produce an unfavourable opinion as to the safety of their



employment, in others; I am deeply convinced they will, notwithstanding, prove, when judiciously employed, one of the greatest boons to the fairest portion of our creation. From the many opportunities which have been afforded me during the last twelve months, in my own practice, as well from the kind and favourable reports with which I have been favoured from my esteemed and talented friends Dr. Wm. Reid Clauuey, M.D., and Mr. H. H. Taylor, surgeon, of Sunderland, and also from Mr. Wm. Eddowes, for many years a distinguished obstetric practitioner at South Shields, I am fully satisfied that prompt uterine contraction may be produced, and the hemorrhage restrained: thus preventing the death of the patient, which must have occurred from such loss of blood, and the exhaustion resulting therefrom.

It is an established axiom that the chief object in such cases to be obtained, is to produce quick contraction of the uterus. To achieve this, I am now enabled to lay before my professional brethren the report of my plan adopted, which is to inject into the cavity of the uterus, by means of a suitable apparatus, various stimulants, such as spirit of wine, brandy, rum, &c., indeed such as may be at hand when the case requires it. They may be diluted with water, one-half, but in very desperate cases, pure spirits, such as brandy, &c., may be used. In the many cases in which they have been employed, not the least untoward symptom has followed—not unfrequently the patient's recovery has been better than in former cases of childbirth; this occurred especially in a case reported to me by my friend Mr. W. Eddowes; that of a delicate lady, for whose safety he had extreme dread in all her former accouchements, and which led him, from my suggestion, to employ the most energetic means. In this case spirit of wine, diluted one-half, was employed.

In my early employment of the means, a piece of linen rag, saturated with the diluted spirit, was conveyed by the hand into the uterus, thus sponging its interior walls, and causing contraction; since which, I have devised a plan by which the fluid can be conveyed to the uterus; consisting of an ivory tube, eighteen inches in length, the extremity of which, for about three inches, has small perforations; these are surrounded by soft sponge secured around it, thus preventing the tube from doing the slightest injury to the uterus; the mixture is then forced into the cavity of the uterus by means of the ordinary enema apparatus, to the elastic tube of which the ivory pipe is appended.

I have after very cautious and deliberate experience in respect to the subject thus detailed, not only in my own practice but that of others, thought it expedient to lay my views and the result of those labours before my medical brethren. In due time, it is my intention to present a record of the several cases in which such *novel means* have been so successfully employed.

Kirkby Stephen, Nov. 26.

### France.

#### ACADEMY OF SCIENCES.

Meeting of Nov. 30; M. MATHIEU in the Chair.

LITHOTRITY.—STATISTICS BY M. CIVIALE.

From the year 1836 to 1845, M. Civiale has applied his method in 266 cases, with success in 259 patients, a few of which obtained only partial relief. In seventy-nine instances M. Civiale considered that the operation of crushing presented no chance of success, and refused to operate. Lithotomy was performed on twenty-eight, and seventeen recovered.

The statistics laid before the academy, at various periods, show that 582 patients have been operated upon by the author; and the tables point out distinctly this remarkable fact, that three-fourths of calculous patients who present themselves now-a-days, for treatment, are operated upon by the method of crushing.

#### ACADEMY OF MEDICINE.

Meeting of Dec. 1; M. ROCHE in the Chair.

THE PLAGUE.—The last conclusion of the re-

port was adopted, and a vote of thanks was unanimously passed to the reporter, Dr. Prus.

### THE SPAS OF THE RHINE.

BY PROF. TROUSSEAU AND CH. LASEGNE, M.D.  
CHRONIC RHEUMATISM.—Section 2.

Under that name have been included a vast number of different affections, the only common symptom of which is difficulty in the accomplishment of motion. At every spa numerous cases of cure are brought forward. In special works, as well as in the most unimportant pamphlets, the happy effects of the waters are pompously recited; each fount is boastfully recommended to rheumatic subjects, but nowhere do we find the true characters which mark the cases in which benefit can be rationally anticipated. This absence of necessary description can only be accounted for by the intricacies inherent to the subject; observations are far from uncommon, for the "observable matter" is only too abundant; indeed rheumatic patients may be said to constitute the main body of those who resort to medicinal springs; it is therefore easy to study each separate case, but nothing is more difficult than to extract from that study any truly scientific conclusions. Labouring under all these difficulties, it is not our intention to attempt a monograph of rheumatism; it is only our desire to point out some details,—to propose a few indications, and to endeavour to assign to mineral waters their real place in the scale of therapeutic agents.

Chronic rheumatism may be either articular or muscular, affecting chiefly the fibrous textures in the latter case: we will specially direct our attention to the articular form, because it is at the same time, the most common and the most severe.

In spite of the most energetic and skilful treatment, acute articular rheumatism too frequently gives rise to permanent alterations. Thus persons of a weak constitution find in rheumatic inflammation a more powerful cause of chronic anatomical change in the structure of their joints, than in wounds or external injuries; parturition also places women more particularly in peril from the malady under consideration. Rheumatism may leave, after its occurrence, indelible traces of its passage, or it may persist in a chronic form, pursuing its progress, and every day producing fresh anatomical changes. In the latter case the pains return periodically, under the influence of the vicissitudes of weather, and mineral wells are frequently resorted to with success. In some instances the attacks become gradually more severe and more prolonged; but so long as the pains retain their character of mobility, the spas will be found advantageous; if not arrested in their progress, they invade at last one or more joints, the suffering is less acute but more continuous, and occasionally accompanied with febrile excitement; other articulations are occupied in their turn, and the body is gradually reduced to a state of immobility incompatible with the healthy accomplishment of its functions. All are not, fortunately, affected in so general a manner; but a small number of joints, the knee, foot, shoulder, or spinal column, are diseased; the pain does not extend beyond the peculiar seat of rheumatism, but returns periodically; and the cause of its return or departure often remains unknown. The variety of chronic rheumatism, which the Germans designate under the name of "*R. erethicus*," is more common in the female than in the male sex—a fact easily ascertained by even a superficial glance at the population of mineral spas. Sydenham had also been struck with the truth of the remark, and endeavoured even to ascertain if chronic rheumatism might not in some cases be referred to hysteria; an opinion which he rejected on observing that no success was obtained by the use of anti-hysterical treatment. In the symptoms and progress of chronic rheumatism we find many analogies with those of gout; the swelling of the osseous extremities, the deformation of the small joints, their stiffness, are the same in both maladies; and it would perhaps not be a very un-

reasonable opinion to consider chronic rheumatism as the gout of women. The probability of the cure is often deduced from the smallness of the number of joints affected: an unfaithful guide to the prognosis, for we see many persons, to all appearance deprived of the use of all their limbs, cure with astonishing speed; and others, on the contrary, to whom we would have supposed it very much easier to grant relief, obtain only very trifling improvement from the baths. Unfortunately it is much easier to advise physicians to guard against false speculations, than to furnish them with the means of making a correct appreciation of the various cases; the rapidity of the invasion of the symptoms, the persistency of a subacute condition, appear to us favourable circumstances. The torpid form of rheumatism is four times more frequent than the preceding variety; such is, at least, the proportion at Wiesbaden, and it is even greater at the Armenbad and Ems, and is more particularly observed amongst the poorest classes of society. It may be consequent upon acute disease, or appear spontaneously with its purely chronic characters. The attacks are badly limited, and intermittence can hardly be said to exist. The pains are more severe at night, and in all cases dry or moist heat increases their violence; a remark which is of some interest in the question of the treatment by mineral waters—indeed, it might be said that elevation of temperature has a tendency to cause a return of subacute symptoms, and therefore to place the patient in more favourable conditions for the ultimate success of the treatment. The joints are affected in irregular succession, and motion becomes more and more impeded: no feverishness is present. A third form of chronic rheumatism is that which, for want of a better name, we may call "*R. nodosus*." The symptoms always set in at first in one of the phalangeal articulations of the hand, never leave the joint first occupied, and extend thence gradually, causing characteristic deformities and swelling of the osseous extremities; the fingers become more or less drawn in, and, after a time, they form with the metacarpus a well-marked angle. During many years the small joints only are affected. In this form no success whatever can be expected from mineral waters, more than from any other mode of treatment, even when followed up with the most persevering activity.

We said, at starting, that mineral waters might be employed not only against chronic rheumatism but also against those anatomical changes which the disease, acute or chronic, may have left after it in the joints. Here the examination of the affected articulations must furnish all the elements of the diagnosis and all the indications of the treatment. The chances of success must be calculated entirely upon the degree of mobility left in the joints, with a complete ankylosis the probabilities of cure being very slender.

### HOTEL DIEU.

CLINICAL LECTURE, BY PROFESSOR ROUX.

FUNGUS TUMOUR OF THE BONES.

A man aged thirty-eight, of a strong constitution, was lately admitted into hospital for the treatment of a tumour, which had formed three months since in the right knee. At the beginning of the disease he made, on two occasions, a violent effort with the limb, and each time a very painful sense of distention was experienced in the joint. On examination two tumours were distinguished, one on either side of the tuberosity of the tibia; pressure reduced them to a certain degree, and at all times they were the seat of pulsations synchronous to the pulse. The skin had retained its natural colour, and the patient complained only of weakness of the extremity.

After relating the case, the Professor proceeded to state that this tumour should be considered as an aneurismal affection, occupying the spongy texture of the head of the tibia. "This," continued M. Roux, "is an uncommon disease, or at least one which authors have seldom described. Fifteen or eighteen cases at most are on record. For my



part, during an experience of thirty years of hospital practice, I have met only with three or four, the last of which I observed not more than two years ago; a complete cure was obtained by ligation of the femoral artery."

These tumours are almost constantly found in the bones of the extremities, particularly the lower, and in the parts which contain a greater quantity of spongy texture. The tibia is most usually occupied. An external injury, a blow, or a sprain, seems to have produced it in every instance, although it certainly is not easy to understand what influence external causes can have on the aneurismal development of the arterial capillaries of a bone; still the fact is one confirmed by too frequent observations to admit of doubt. In a case related by M. Lallemand, a rheumatic or gouty predisposition seemed to have caused the malady; and in a most interesting observation of Scarpa, the same predisposition is stated to have existed. In the present case it was after a violent effort to raise a carriage that the patient first experienced pain in the part, and it was also an effort of the same kind which produced the disorder in the patient he observed about two years ago. In one patient you may remark that the internal layers of bone have been gradually absorbed, and that the fungous areolar growth lies immediately under the skin, forming irregularities in the outward aspect of the limb. Under the name of "angiectasy" we comprise only the diseases of any part of the vascular system attended with dilatation of the vessels, and this great class may be subdivided according to the seat of the alteration in large vessels or in the capillaries. To the former belongs the history of aneurism; to the latter, the tumours of the nature of that which has occasioned this lecture. Fungous tumours of the capillary vessels may be met with in the soft textures or in the bones, and when they occupy the latter seat, they are not only remarkable on account of their unfrequency, but also by some other circumstances, which we will briefly enumerate. In the first place we observe that sanguineous tumours of the soft parts are generally prognosticated by the presence of *nævi*, whereas in the bones we have no reason to suppose that the development of the disease is anything but accidental. A proof that a congenital disposition has little or nothing to do with the aneurismal dilatation of the osseous capillaries may be found in the fact that in most cases external injuries have been the producing causes. Another material difference resides in the fact, that these tumours occupy indiscriminately the arterial or venous capillaries in the soft parts, and exclusively the arterial system of bones. A cancerous element not unfrequently is superadded to the vascular transformation, and when this unfortunate complication is observed, the fatal results of organic disease are produced even before abundant hemorrhage could supervene. You are aware, gentlemen, that, for the treatment of these erectile tumours of the soft parts, numerous methods are employed, and particularly within the last few years the progress of the art of curing has been, in this respect, truly remarkable. We recollect that twenty-five years ago, amputation was frequently considered as the only resource in cases which now-a-days would obtain relief by a great many plans, differing with circumstances, and with surgeons. Ligation, pressure, cauterization, puncture—simple, or combined with the application of heat or of electricity: such are the principal methods of treatment which would be resorted to.

As to fungous tumours of the bones, we know only of three operations by which a cure can be obtained:—ligature of the main artery of the limb, amputation of the extremity, and, in some few instances, resection of the portion of bone occupied by the malady. Ligature we prefer, in the present instance, for reasons which we will expose in another lecture.

D. M'CARTHY, D.M.P.

APOTHECARIES' HALL.—Gentlemen admitted members Dec. 3:—William Ackland, William Brown, and John Harris.

## REVIEWS.

*Fever Physiologically Considered; Considerations on Yellow Fever, Typhus Fever, Plague, Cholera, and Sea Scurvy, &c.* By D. M'CONNELL REED, M.D. 8vo. London, 1846. Pp. 262.

This is truly a theoretico-practical work: a considerable portion of it is devoted to the speculative inquiries which physiology, pathology, and the *modus agendi* of medicines so abundantly suggest; while its other, and we think better, parts consist of practical matters of fact, the results of the author's experience and careful observation both at home and abroad.

Dr. Reed belongs to the pathological school, and is evidently one of its thorough partisans: for throughout his work we do not find him paying the least attention to symptomatology merely as such, but always looking further for some local cause or causes to which to refer the superficial manifestations of ailment. He is evidently not inclined to believe in *disorder* unconnected with *disease*—that is, with local lesion of some kind. This is a doctrine at present gaining fast ground amongst the most enlightened pathologists; and certainly the agencies of the microscope and of organic chemistry are doing very much to substantiate this bold proposition. There can be little doubt, we apprehend, that in the main this opinion is the correct one, and we have reason to hope, that when our senses shall be better aided, the claims of the exclusive pathological school upon our confidence will be further attested.

At present, however, we are not disposed to set symptomatology altogether aside, for we have often been exclusively guided by it in practice, when pathological data were insufficient, and have had good reason to be thankful for its services. All the varieties of fever Dr. Reed regards as having a proximate cause, which he considers local—reference being made to some organ or organs intimately concerned in the more important functions of life. He thinks that the local derangement gives rise to the general disorder, and not conversely, as the Hippocratic school contend. We are not disposed to go to the entire length of his doctrine, though, in the main, there can be no doubt of its validity. The thorough pathologist, however, will hail tenets like these with a hearty welcome.

There are many passages in the work before us from which we could make selections, and would fain do so, but that the demand upon our space reminds us we must be brief. The following remarks, however, we cannot, in justice to our author and ourselves, pass over, for they abound in excellent good sense, and are likely to aid in superseding many ridiculous notions yet prevalent concerning contagion, and the diseases that manifest it:—

"On the whole, the author concludes that the plague, yellow fever, typhus fever, cholera, and scurvy, are contagious in the same degree—that is, they are not contagious in the sense in which they are vulgarly supposed to be so. Further, he is of opinion that those disorders are only contagious, or (to speak more properly) infectious, when they occur in densely-populated, ill-ventilated localities, among filthy, ill-fed, intemperate subjects, who are deprived, from whatever cause, of a due supply of fresh vegetable aliment, and properly oxygenated air, either on shore or at sea. From which, and from what has already been said in this treatise, he concludes that the existence of quarantine laws is oppressive to individuals, useless, if not injurious to society, and a shame and a disgrace to any enlightened country: for there is no more danger of the typhus fever or scurvy being conveyed by the bodies of men, or packages of merchandise, from England to the West Indies, or to India and the Levant, than that the yellow fever, the Asiatic cholera, or the plague will be brought to England by the same means from any of the countries in which they are endemically or epidemically prevalent. But the same causes will produce the same results in whatever part of the world they prevail, and among men of the same habits and disposition, however styling themselves." (Pp. 220, 221.)

## TO CORRESPONDENTS.

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P. S. is low in his estimate, but is still above the mark.

A Medical Supporter.—We give the affidavits because it is our principle to let our readers see the two sides of any question submitted to them. We have nothing to lose, and everything to gain, by the truth, to which alone are we partisans. When the rule shall be argued before the Lord Chief Justice Denman, our readers will be able to see that we have no reason to recede one inch from the high ground we have taken from the beginning. Just the contrary. Our only fear is that the case will be as hastily withdrawn from a fitting jurisdiction, as it has been timorously submitted to it.

La Clinique wishes to know where the fifth edition of Dumeril's work on Science may be procured? Mr. Bailliere, of Regent-street.

Mr. Bailey's cases have been received.

We have to return to Mr. Alfred Markwick, the Surgeon of the Western German Dispensary, our marked and public thanks for his valuable and able contributions to this journal. That they have secured him the honour of venomous notice from a defeated and ungenerous rival, whose pitiable and baffled malice rises—naturally enough with him—in the inverse ratio of his fortunes, only commends Mr. Markwick the more to our gratitude and sincere well wishes. We should, indeed, not notice this despicable attack if we were not quite sure that it would point out its object as worthy of professional support.

Several letters received on the Provincial Association must stand over. The seventh letter of Vox Veritatis shall appear in our next.

The offer of L. G. D. is obliging, but is declined.

Mr. Smith's letter on the peculiar applicability of Courts Medical to the case of a medical gentleman who was burnt out of a certain street west is under consideration.

B. H. (Manchester).—The work of Dr. Rigby. It is the standard work on the subject.

Dr. Nottingham will hear from us privately.

K. C. B.—"The Medical Times Almanac" will be ready, as usual. We shall state the day in our next number. It will be a distinct publication from the work, and gentlemen wishing to secure it are requested to order it through the booksellers and newsmen. Where this may be inconvenient, our Publisher will forward it to gentlemen sending the price in postage stamps, viz., sixpence.

## THE MEDICAL TIMES.

SATURDAY, DECEMBER 12, 1846.

"We contend that special institutions for sectional departments of medical science, however valuable, can never supersede the necessity of an institution comprising within itself the entire range of medical and surgical knowledge."—MR. PENNINGTON'S ADDRESS to the Members of the National Association, August 12, 1846.

THE venerable president of the National As-



sociation enunciated in these few words the grand principle of Medical Reform. It is the energetic vital element that combines for one purpose the various constituents of the present National Institute. When a want common to many classes has been discovered, a principle of union is immediately developed,—a cohesion by affinity ensues, and an aggregation of volition, intellect, and power is brought into operation, that ultimately rends asunder the enslaving bonds of custom, and establishes a revolution commensurate with the enormity of the evil intended to be overthrown. In this way all great reformatations have been accomplished: for never since the days of Nimrod, the first builder of cities, has any great enterprise been carried forward in which unanimity upon some common principle was not in the first instance ensured. When men speak all one tongue, under the inspiration of a common want, we may augur the highest success, even for the vastest undertakings. Let them, however, give a voice to different requirements, and speak in language unintelligible, because not winning the sympathies of their fellow-workmen, then, like another Babel, their labours will be arrested midway, and a dispersion as wide, as fatal, and as hopeless will ensue as marked the primitive "confusion of tongues."

The profession may rely upon it, that in these words of Mr. Pennington a great truth is conveyed, which cannot be dwelt upon too earnestly or too often. To the student of history and social institutions it is a matter of curious pleasure to observe how opinions revolve in cycles, and how truth, for a long time submerged under the waters of error, again rises at various intervals and rides buoyantly over the billows of ignorance, prejudice, and faction. Like the halcyon, she shakes the spray from her wing, and swells her crest, conscious of the unspotted purity of her undying charms. Unfortunately, however, she seldom remains long above the waters.

It is not right that these principles should remain too long before the world, as abstractions: for, in that case, the theory degenerates into cant, and the glorious aspirations of genius into the fanatical ravings of a besotted imbecility. There is a time when these principles shall receive a tangible form, a living embodiment,—that a symbol shall be given to the world of the earnest belief and self-denying labours of its victaries. We have seen in the records of history many an axiom fraught with the greatest blessings to a people irrevocably lost, because the moment of realizing it was not duly seized, or, perhaps, because its advocates rather chose to employ it as a theme for ratiocination, or of displays of a factitious sensibility. There is a luxurious indulgence of sentiment, fatal to all greatness of action. It is an intellectual weakness—a dallying of the fancy with the attractions of truth—that robs the mind of its due opportunities of spreading the seed and reaping the harvest in its generation. Such men are the suicides of their own reputation, and the stumbling-blocks to social progress.

England abounds with men of practical genius, who are able to convert hypotheses into

facts, and who make each fact a starting-point for a new development. Hence we are pre-eminently a people of progress, and although, perhaps, not equally inventive with people of other countries, yet enjoying the happy attribute of constructiveness—of experimentally trying the value of every axiom—we imperceptibly, but with great rapidity, stretch far beyond all other nations in social and artistic developments. Our steps are so many consequences, not startling creations and unattainable abstractions, but simple offshoots from each new ramification, so that, in truth, we are overshadowed with the greatness and the amplitude of our own growth. Hence it is that we anticipate the most successful results from the labours of the National Institute. They have sought to give a form, a coherence, and a stability to a principle that has hitherto been wandering hither and thither in search of a local habitation.

The time is past now for advocating the necessity of a recognition of the truth of the principle; yet we know that there is so much selfishness in the ruling powers of our two Colleges, that they will exert themselves to their uttermost to prevent the accomplishment of the end for which the general practitioners have now completed their organization. They will resist with a tenacity the more obstinate, the more advantageous to the profession the result is likely to be. Whatever exposes their own corruption and incapacity will be, on that account, the more violently opposed. We, however, fear them not: we are certain of the issue, and pursue our course with the triumphant air of a man already assured of a victory. Our cause is that of truth, education, professional honour, public good, and we *must* attain success. They know this, therefore they fear.

What would the public say if the inspector of a railway were unacquainted with the various sciences which appertain to his peculiar duties? Such an individual should know something of chemistry, in which the laws governing the expansion of steam are embraced; of mechanics, to estimate the amount of friction, under special circumstances, and to understand the value of mechanical powers; of geology, to be acquainted with the nature of soils: all these, and many more, are sciences with which the engineer should be acquainted; and, if he were ignorant of any, he would neither be a useful officer to his employers, nor a safe one for the public. In every accident to the engine, or the line, his opinion should be adequate to its repair, and only under extraordinary circumstances should it be necessary to summon the opinion of an individual more accomplished in either of the sciences in which his judgment was consulted. This is, in short, the duty and responsibility of a railway inspector; and, if he were not equal to his task, we may rely upon it that public censure would speedily dispossess him of his functions.

We require no more from a general practitioner of medicine, than public necessity and common sense demand from an inspector of railways,—the ability and knowledge to meet all the emergencies of his calling. This cannot

be done, in our case, unless the general practitioners educate themselves in their own institution, under regulations which themselves have framed. The public should support them in this just and sacred demand: their interests are more involved in this question than those of the general practitioners; but medicine has been so long under the dominion of quacks and corporation-jobbers, that the most lamentable ignorance prevails among the multitude in reference to the great destinies which this policy embraces.

We have reliance, however, in the slow process of enlightenment which is now informing the minds of our most able statesmen upon the subject of medical legislation. The humane, the moral, the informed, must be all of one opinion, and if the time is not yet come, it is not far off, when a combination will be formed between the profession and the public for the reorganization of our profession upon sound, equitable, and enduring principles. Would it were already come, for the jealousies and dissension in which our present uncertainties with respect to legislative proceedings have plunged us, are in the highest degree injurious to our professional welfare. We must, however, be wary, vigilant, and active, and continue, through good report and evil report, the uncompromising advocates of truth.

"Tu dic, mecum, quo pignore certes."—VIRGIL.

THE hydropathic quacks tell us, with a coolness we would fain consider the offspring of ignorance, that never before the march of their mummery with Preissnitz at its head was the profuse employment of cold water known as a remedial agent. They further affirm, that the curative powers of cold water, used thus profusely, were first ascertained and announced to the world by their immortal prototype. Poor fellows! we willingly acquit them of a radical desire to deceive mankind; for, whatever the character of their hearts, we cannot, in the multitude of our benevolent tendencies, give them credit for having heads clear enough for even the lowest form of literary jugglery. We believe they know no better than to credit thoroughly the nonsense a German boor has imposed upon their weakness. To undeceive them, and afford them a clear insight into the delusion they unhappily labour under, and unmeritoriously live by, we charitably give them, as in our previous articles, a few items of research to prove what pitiful copyists they are.

When water-swallowing by wholesale was revived in this country four or five years ago, under the guise of something *new*, all the ignoramuses in the land lifted their eyes and hands in astonishment at the wonderful capacity of the human stomach! Hydropathic patients were looked upon as a set of aqueous Dandos who knew no filling. Tantalus, who was ever thirsty, and could get nothing to drink, lost all his character before these modern tipplers, who seemed as if they could never take too much. The notion of Piso drinking incessantly for two days and two nights, as vouched by Seneca and Tacitus, seemed in a fair way of becoming



realized in the persons of these maddened water-bibbers. Hydrophobia might never have had an existence; and the propriety of fermentation, as an established law of nature, began to be very seriously questioned. Some of the more vigorous partisans of the pump (*i. e.*, those who got a living by vociferating its praises, and vending its produce) gravely thought that Nature was not exactly herself when she instituted processes for making strong drink. Unpleasant reflections were cast upon poor Nature, for going beyond her legitimate means, and giving humanity the opportunity of getting beside its legitimate self; and if the said Nature, like her biped children, were capable of being waited upon in due form, we verily believe there would have been a depuration of Preissnitzian heroes, armed with baths, and buckets, and mops, and such like materials, insignias of office, to request that hereafter there should be nothing liquid but water.

The rage in favour of the "gelid stream" was really very funny; and the idea of its being drunk by pints and quarts, on an empty stomach, and almost without stopping, was as marvellous to the multitude, as to see a comet wags its tail, or the man in the moon wink his eye. The old pantomimic trick of pouring water down an artificial gullet, into an artificial stomach, by bucketfuls, ceased to be laughed at, at the minor theatres, for the people knew they could see the reality at a cold-water establishment. The novelty struck everybody; and it was universally agreed that there was no knowing what the world would come to at last.

Now, without using any emphatic language, or putting ourselves at all out of the way in making references, or repeating them, we beg leave politely to inform such as were wonder-struck by the Preissnitzian use of cold water, that not only was there no novelty in it, but that its extravagance was far outstripped by a set of devotees a few ages back.

We learn from the "Commerc. Nozimb.," 1736, hebdom. 8, sec. 2, quoted in the "Medical Essays and Observations," published by a society in Edinburgh, third edit., 1747, vol. 6, p. 375, that "the Italian physicians of that time esteemed cold water a universal remedy, giving in the day, fifteen, twenty, and twenty-five pounds of water made cold by ice, and applying, at the same time, cold water, or snow, to several parts of the body. By this method they treated fevers, smallpox, dropsy, &c."

In Baddam's "Memoirs of the Royal Society," 1741, vol. 8, p. 487 *et seq.*, is a review of a work by Dr. Cyrillus, written in Latin, on treatment of fevers and other ailments, by the profuse exhibition of iced water. So far back as that time, a century before quackish hydropathy came into existence, and called itself a discovery, was cold water used more profusely, by a legitimate practitioner, than it has ever been by the German peasant or his illiterate proselytes. Yet even here was not the origin of the practice, for the reviewer says:—

"But to cure fevers by the use of water only, mixt with snow, and that in large quantities, for several days together, without any other medicine or food, is what Dr. Cyrillus takes to be entirely new; and yet this was attempted at

Naples a few years before, not only in an uncommon, but too daring a manner. The method was communicated in a rude, undigested, small treatise, brought from Spain; and by it he was surprised to see that some, contrary to all expectations, were snatched from the very jaws of death. Cautious physicians were at first startled at the practice; but, encouraged by repeated and successful trials, they at length became bolder, and what some people attempted at random, and without considering either the nature or time of the distemper, they reduced to a more cautious and safe method." (*Op. cit.*, pp. 487, 488.)

From the same work we learn, that Dr. Cyrillus instituted a "water diet," which he called a "grand remedy." He proposed that, in the sole use of cold water as a remedy, great caution should be observed at first. This caution consists in practising as follows:—

"The chief rule is, that the patient should begin to drink, upon an empty stomach, about one or two pounds of water, cooled with snow, according to his age, strength, or even thirst; the same quantity to be repeated every hour, or every other hour, or later, both day and night, without intermission, unless he happen to fall asleep. The patient to abstain entirely from food." (*Op. cit.*, p. 488.)

In proof of how utterly and confidently our author relied upon cold water, and how unsparingly he pushed its use, we find him speaking and advising thus:—

"Should the parotids swell, as they often do, or any purulent matter be observed to be mixed with the faeces or urine, which is an evident indication of an abscess, the use of the water must not be laid aside, but rather urged the more." (P. 489.)

"If the water be thrown up as soon as drunk, the patient must be obliged to repeat his draughts. In like manner, if hiccup arise, water is to be continually administered: for we observe that, as it is caused by the use of water, so it is removed by the same. If sweat ensue in the use of the water diet, it should be prevented, by giving the patient still colder water, and in larger quantities, and cooling his body by taking off the bedclothes, fanning him, and admitting the air; and some even venture to sprinkle the patient with snow. What proves the greatest difficulty to the physician in the use of water is, when the patient becomes either delirious, lethargic, or greatly weakened, is not able to drink the water in due quantity, or often. Then all possible pains are to be taken to exhibit this as the last remedy, which is sometimes done by threatening the delirious, and forcibly thrusting snow into the mouths of such as are very weak and sleepy." (*Op. cit.*, p. 490.)

The doctor is even enthusiast enough to say, that "such as in the very agonies of death have had recourse to this last remedy, as the sheet-anchor, have recovered." (P. 491.)

He concludes, that of all remedies, for whatever diseases,

"Water alone seems to be the most innocent and safe: for there is scarce any patient so weak but he may bear the drinking of it in large

quantity. Hence, it would not be immethodical, if, when matters are brought to the lowest pass, the physician should at least permit, if not prescribe, a water diet, though contrary to the indications. For we sometimes observe that patients, whose lives have been despaired of, have unexpectedly recovered." (P. 493.)

Dr. Cyrillus had plenty of followers in his eccentric and bold form of practice. In subsequent years, it was largely the fashion to treat all manner of diseases by cold water alone, and this in prodigious quantities. Several gallons daily were not thought an extravagant potation; and, as cases are easily manufactured and attested, cures were put forth by wholesale, as performed by the exclusive use of cold water. It was a common thing to make patients live upon it; and perhaps, if the truth were known, it was quite as common for them to die upon it. However that may be, it was a very fashionable remedy, and thousands had faith in it. In the "Medical and Physical Journal," vol. 16, p. 383 (An. 1806), are the following remarks:—

"The effects of *diæta aquea*, or living wholly on pure water cooled by ice, in alleviating the pain of cancer, and in several cases even of its effecting a complete cure of that painful disease, which are narrated by M. Pouteau, and which have been corroborated by the experience of Mr. Pearson, have, says Dr. Buchan, been unaccountably neglected. Nevertheless, after a few days, the desire of solid food entirely subsided, and the stomach appeared completely satisfied when filled with the aqueous fluid."

This practice of living for a time upon cold water, and of drinking it inordinately, kept in fashion for some time, and produced, amongst many assumed good effects, plenty of bad ones. Whilst its partisans said it would cure cancer, others, quite as sagacious, and perhaps rather more honest, said the abuse of the beverage caused that disease. In the report of the Carey-street Dispensary, published in the "Edinburgh Medical and Surgical Journal," vol. 5, p. 493, it is said—

"Cancer seldom occurs, and is peculiar to water-drinkers."

It is not necessary that we should quote further, as we easily could do, to prove that any of the freaks of folly committed in this day upon the pump have had precedents enough that have far outshone them. The passages we have given show that Preissnitz and his *protégés* boast very idly, when they talk of making men swallow more water than was ever swallowed by bipeds before! What is a paltry sixteen pints a day to as many quarts, or these to as many gallons? And what is this to becoming a syphon, and sucking perpetually at the fountain for days together! The hydropathic quacks sink into insignificance before the bold legitimate practitioners of days gone by! Nay, even at a later period, when cholera was rife amongst us, and Preissnitz was—what he ought to have continued—a rustic menial, cold water, in unlimited quantities, was advised by Dr. Shute in the collapse stage of cholera. In the *Lancet* for 1832-3, p. 107, is a fearful case, recorded by Mr. Wilson, of Whitehaven, but which, nevertheless, was cured by the patient drinking seven-



teen gallons of cold water in four days! We could quote plenty of such cases were it requisite. How could Dr. Forbes make such a mistake as to talk of the *novelty* of modern hydro-pathy? It was a strange oversight to praise a set of quacks, and overlook what the honourable practitioner had done aforetime!!

## MISCELLANEOUS CORRESPONDENCE.

### THE NATIONAL INSTITUTE.

[To the Editor of the Medical Times.]

SIR,—It is with mingled feelings of pleasure and of pain, that I find I have been elected, by a fair and honourable ballot, to serve my profession by defending the cause of the general practitioners in the first Council of the National Institute. The pleasure I feel is that of one who has been chosen, though unsolicited on my part, to represent the largest, the most noble, and—although comparisons are sometimes said to be odious—I must add, the most honourable section of the profession to which I belong. The pain it will give me is that which must fall to the lot of those having minds constituted like my own, and who are irrevocably determined, come what will, to set their faces as a flint, to overcome those crying and iniquitous evils which press upon the general practitioners of this country.

And, now the National Institute—the constitution of which has cost so much time and deliberation—is fairly launched upon the ocean of the medical world, the members who have joined us, as well as those who have not, will soon have an opportunity of judging with what materials she is built, and with what skill she has been put together. At any rate the coming storm will try her timbers for her; and the question—the oft-reiterated *cui bono*—will not be whether she is able to outsail the old rotten tubs of corporate corruption, not whether she is able to go into battle, but whether she is able to break the enemies' line. We are not ashamed of our colours, nor do we fear to hoist them; and, like all who have justice, mercy, and truth upon their side, we will fight down to the water's edge. These glorious attributes, since they never adorned our colleges, have become as idle words, fit only for derision among those who falsely and presumptuously call themselves their heads. But when I think of such wickedness, and call up to my mind the history of nations greater and mightier than our own—who, because they cared for none of these things, but fostering injustice, tyranny, and wrong, have been literally swept away from the face of the earth, as it were with the besom of destruction—my spirit comes to me, while I feel, with the immortal bard, "Thrice is he armed that hath his quarrel just."

The Court Circular announces that Sir Benjamin Brodie and Mr. Guthrie have had an interview with Sir George Grey at the Home-office; but, if I am not very much deceived, Sir George Grey is not a man to be hoodwinked or forestalled by one party or the other, but will dispassionately deliberate on the important questions to be brought before him. This I know too, that Sir George Grey is a Christian man—one not living for time; and one, therefore, who, for all the wealth of the nation, will not knowingly consent to any measure of medical reform that has not for its object a just regard for the members as well as for the head. He knows, too, perhaps better than I can tell him, how signally Sir James Graham failed in the last session in endeavouring to bolster up, by fresh legal enactments, those evils that have, and with shame be it said, for years past been denounced and despised by all right-thinking and honourable men. I am certain, also, Sir George Grey is far better able than his predecessor to estimate the value of four thousand educated, and in many instances highly educated, minds, and that he must feel the im-

portance of protecting them by laws which have not been denied to others. However that may be, I feel certain, from extensive correspondence, and some experience of what it is that the four thousand general practitioners are composed of, that if they are not protected by just laws, they have in them the elements of the most gigantic evils; and the Minister, as an acute legislator, will see the necessity, not to say the advantage, of getting this question settled to the interest of the many, and not of the few.

As regards the National Institute, I shall, as long as I continue in the Council, endeavour to keep in view those great and important ends for which we have so strongly contended. Once for all, let me urge upon all who desire to see the general practitioners of this country rescued from the trap which has been laid for them by unprincipled men—let me urge upon them the necessity of keeping steadily in mind these three great points—promptness, firmness, and union. No one can conquer us as long as we use these weapons.

"Principiis obsta, sero medicina paratur  
Cum mala per longas invaluere moras."

Your faithful servant,

ONE OF THE COUNCIL

OF THE NATIONAL INSTITUTE OF MEDICINE.

P.S.—I send this to the *Medical Times*, because, of all others, it is, *par excellence*, the journal of the general practitioner—where, at least, if he is not defended as he ought to be, he is not treated with injustice and animosity.

### THE WOLF AND SHEEP ASSOCIATION.

[To the Editor of the Medical Times.]

SIR,—I am afraid your article on Worcester Gentility has deprived the world polite of a worthy substitute for the Chesterfield Letters; certes it has spoiled what was "a pretty quarrel" as it stood. Wo to us and all, like us, fond of a laugh, the giant's club has been used *too* successfully. We have heard the last of our Provincial friends. They will "die and make no sign." Peace to their *manes*, asinine or equine, or neither, as the case may be. And yet a word I must have, were it only for an epitaph. *De morientibus nil nisi verum*—but that "*verum*" should not be withheld.

An enigma with me for years, till you took the part of *Œdipus*, was, for which of the three divisions of us the Association was founded? "The physicians of course"—answer half a dozen voices. They lead off on every grand state occasion; they make addresses; they scheme out laws; they are the Presidents; the President of the Council is one of them; the founder is one of them; the Secretary is another of them; the influential and preponderating section of the Council are others of them: it is in very essence a physician-ridden society, moving and having its being in physicianhood. What then, Sir, are the physicians to get in return for their provident solicitude and trouble? science? learning? manners? "Hardly," exclaims a physician near by. "Only fancy a country practitioner teaching Dr. Hastings good manners, or Dr. Streeten *belles lettres*! The thing is preposterous! You, general practitioners, have very comfortable opinions about yourselves; but, depend on it, we don't tolerate your junction on the supposition that you will be useful as professors of the rare accomplishments. Hardly!" "What, then," inquire *Messieurs les Brebis*, "is it possible that we subserve your politics? Do we really lend your schemes a helping hand? Dear me—what an honour for us! For me, how much you flatter us! We useful to you! Who could have thought it? And then to be allowed to dine with you, and to be actually treated as if we were gentlemen! The man must be a monster, worse than wicked, actually ill-bred, who could fail to do his everything for such condescending patrons."

Well, 'tis not so bad, after all, that the physicians gather us together under their wings. They hatch a use or two out of us. If left to ourselves, it is ten to one if we should be of use to ourselves or anybody else. As it has been, we have been monstrous useful to the physicians. We have not con-

founded their politics, nor frustrated their knavish tricks—just the contrary. That's the art and merit of the Worcester conclave. It extracted a living use of us nobody could have guessed at. It has made us at once useful and generous—useful for wrongs and generous of rights. Before that we were only the latter.

As to the pure surgeons—"the fellows"—I don't count them for much, either in the matter or out of it. I have done their business for them under the generic term. They are the physicians under another name. One is physician under the flag of M.D.; the other is physician under the insignia F.R. &c. The one cures clap or fistula without uttering the word surgery; the other cures phthisis, without calling himself medical. They are a pair of very respectable locomotive hoaxers, whose public titles are a pretty illustration of the figure of speech named metonymy.

Now, to say that the F.R. &c. wants something for himself, and the M.D. wants something for himself, and that the poor M.R. &c. is a pretty pigeon between his two friends—a flat between sharps—a dupe between a pair of adroit thimble-riggers—is like teaching children the alphabet: the lesson, 'tis true, is very easy; but, unluckily, the comprehension is not. The M.R. &c. has been *done* out of his College—a rather pretty thing, he used to think; he is being done out of his pharmaceutical practice—a thing that yields some good pickings; he is being done out of his privilege—such as it is—of exclusive practice; but, until he *is* done in every possible shape and form and colour, he will, I dare say, continue to confide in those "d—good-natured gentlemanly friends of his." In these cases, Sir James Graham's quotation is quite as apt for doctors as their patients:—

"The pleasure is as great  
Of being cheated as to cheat."

Your correspondent "J. P." makes even a merit of it, that the M.R. &c. persists in being obstinately indifferent to a mountain-load of such petty results as that of the late charter! With him it is a huge merit! A proof of great discernment! One would fancy that the thimble-rigging process was not over, and that "J. P." had some interest in its success!

To be sure there are some who fancy that the physician not surgical will oppose the physician who is surgical in getting his M. changed into an F. Imagine Dr. Hastings, President of the Council, rating Mr. Crosse, President of the Association, on consenting to take the F.-ship. What an amusing *tête-à-tête*! Why, Dr. Forbes, the omnigenist in physie—who is one of the Council of the Association—had no better grounds for accepting the fellowship of the College of Physicians, than Mr. Crosse had for taking that of the College of Surgeons. The higher the position in the Provincial Association, the nearer the uprise to a position in the corrupt corporation. Dr. Forbes is a most influential member of the body: his notions of physie are by this time somewhat notorious: if he turned hydropathist to-morrow, or homœopathist, or Morrisonian, nobody would be surprised: yet he is the leader of the Association! He then is to blow up the late charter—he to cry out against fellows! He to uphold the interests of general practitioners!

I must say the thought is too much for me, and I indulge in the loud laugh already attributed by one of your correspondents to another—the winning side.

R. B.

### MEDICAL SOCIETY OF KING'S COLLEGE' LONDON.—Nov. 26.

R. Druitt, Esq., Vice-President, in the chair.

Mr. Pittard exhibited two sections of osseous scales from ancurisms, showing a very small hole as the centre or nucleus of each. These were the specimens alluded to at the previous meeting.

Mr. Pittard also exhibited a mouse affected with a curious skin disease; with regard to which he observed that the disease is, no doubt, contagious, for nearly all the mice caught in his residence are affected with it. It assumes the form of lumps of whitish friable material involving the hair and



destroying the skin, so that, when one of the lumps is picked off, the subadjacent muscles are laid bare. On examining this material with the microscope, he had found it to consist of a parasitic vegetable. One spot of the disease, on the tail of the animal, looked exactly like a spot of the white lichen so common on old walls.

Mr. Druitt remarked that it is highly interesting to investigate the diseases of the lower animals, especially of those which are associated with mankind. He once found hemorrhagic pericarditis in a cat.

Dr. Arlidge then read a paper on "The Functions of Organic Beings, and on their relative Development in the various Classes and Orders." All organic beings, he remarked, begin their existence as nucleated cells; some are said never to arrive at any higher or more complex form than that of one simple cell, or a row of cells, such, for instance, as the yeast-plant and red-snow among vegetables; he doubted, however, whether many of the very simple animals or monads are not embryos of more complex forms which they ultimately assume. The entire body, with all its tissues, of every organic being, is composed of cells variously modified. Several functions are common to both plants and animals: these, he believed, are those possessed by the nucleated cell, most probably by every nucleated cell; they are absorption, circulation, respiration, secretion, generation, and assimilation. In the nucleated cell, the first of these, absorption, is effected by endosmosis through the cell-wall, as is respiration also. The circulation in the nucleated cell—cyclosis—can be satisfactorily witnessed when granules happen to be floating in the cell fluid; the power by which it is kept up seems to reside in the nucleus. The generation of cells takes place either by spontaneous fission of the parent cell, or by some process, probably fission in the nucleus: so that a number of new cells are developed within the parent, which they burst in growing. The improvement of organic beings, as you ascend the scale, is manifested by isolation or localization of the functions: in the lowest, every one of their component cells performs all the organic functions; in the next higher grade, one or more of these functions are performed by some few only of the cells, till at length most of the functions are performed each by an appropriate organ. He divided his subject into four parts:—1. What functions are common to all organized beings, as illustrated in the nucleated cell? 2. What are the functions met with in plants; the manner in which they are carried on; and their development in relation to each other? 3. The analogy between the functions of plants and of animals. 4. The increasing complexity of the functions and organization of animals, and the relations existing in the degree of development of their various functions and organs. He entered fully into the consideration of each of these divisions, but in a concise manner that does not admit of further abbreviation. One remark was rendered salient by the discussion which ensued upon it, viz., the waste of wear and tear, interstitial absorption, and the formation of effete excrementitious substances, are processes peculiar to animals; in plants, that which is once deposited is never afterwards removed, and never wastes, finally dying where it was first placed. This, he stated, is not rigidly without exception; there are, probably, a few instances in the organism of plants where parts are absorbed by the vital processes of vegetation; but that interstitial absorption whereby the tissues of animals are incessantly removed certainly does not exist in them.

Mr. Ede was surprised to hear the author speak of the yeast-plant; he understood that its existence had been satisfactorily disproved.

The author replied that the plant is most distinctly visible, and presents a characteristic appearance under the microscope.

The Chairman remarked that it is generally admitted that a vegetable of low organization always exists in yeast, but it is disputed whether that vegetable is the agent of fermentation.

Mr. Pittard said that he had often performed

an experiment, with slight variations of arrangement, and he had seen an experiment performed by Dr. Miller, which seemed to him to prove demonstratively that the yeast-plant is the agent of fermentation; by these experiments it is found that yeast loses its power of exciting fermentation by being very carefully filtered. Boiling, and many other processes fatal to organic life, also deprive yeast of its peculiar fermenting property.

Mr. Wilson remarked, on Dr. Arlidge's assertion, that excretion is not performed by plants, that he saw no reason why the gum poured out in such abundance by some plants should not be considered an excretion.

Mr. Rhodes objected that the exudation of gum from trees occurs only occasionally, and thus does not seem to be indispensably necessary for the life and well-being of the tree, and, therefore, he thought it could not be regarded as analogous to the excrement of animals.

This point was argued at some length by Messrs. Wilson, Rhodes, Ede, and the author; the latter regarded the exudation of gum as analogous to hemorrhage.

The Chairman hinted that the shedding of the cuticle by trees might be considered to be slightly analogous to excretion.

### MORBID EFFECTS OF TIGHT-LACING.

By THOMAS W. CARTER, M.D.,  
of Abbeville District, S.C.

Since I entered upon the duties of my profession, I have frequently been called on by elderly ladies to answer the following questions:—"What is the cause of the modern prevalence of uterine derangements, and more especially of prolapsus uteri? Why, in our youthful days, was it of rare occurrence to meet with a woman thus affected—while of late, it is equally rare to find one who is not, at times, more or less troubled with falling of the womb?" Such questions naturally suggested to my mind, as the cause, some impropriety in the habits of females of the present day. I knew it to be an unequivocal fact, that cases of prolapsus uteri and uterine derangements generally, in modern times, compared with those of former days (with due regard to increase of population), were greatly in excess, if not in the ratio of three to one.

My being at first unable to give a decisive answer to these frequent and very rational inquiries actuated me to inquire into the subject of the modern causes of the diseases under consideration, which brought me to the following conclusions:—1st. That the excessive prevalence of uterine derangements in modern days is owing to the unnatural and destructive practice of tight-lacing, so general among the female sex. 2nd. That such a practice does induce constitutional debility in the female economy. 3rd. That this constitutional debility is transmitted from the mother to her offspring, or at least the effects wrought upon the constitution of the mother affect her offspring.

I now propose examining each successively, in the order in which they occur.

I. *That the excessive prevalence of uterine derangements in modern times is attributable to tight-lacing.*

In enumerating the uterine diseases which appear often to be engendered by this destructive fashion, we find the various displacements of the uterus, viz.: prolapsus, procidentia, retroversion, &c., standing first in the catalogue. 2nd. Abortion. 3rd. Menorrhagia. 4th. The various derangements of the uterine functions, viz.: amenorrhœa, dysmenorrhœa, leucorrhœa, &c.

1st. *The various Displacements of the Uterus.*—The manner in which tight-lacing is instrumental in the production of these loathsome maladies is plain and obvious. The cruel compression exerted by an unyielding bodice, environing the inferior portion of the thorax, and the superior portion of the abdomen, cannot but act injuriously. It forces the contents of the abdominal

upon those of the pelvic cavity. From the long-continued and almost constant intrusions of the abdominal viscera, the ligaments which support the uterus become relaxed, and so much weakened as no longer to be capable of sustaining that organ, together with the weight of the whole contents of the abdomen thus forced down: consequently the uterus, by degrees, is forced lower and lower into the pelvic cavity, until prolapsus, or some other displacement, is the unavoidable result.

2nd. *Abortion.*—Abortion may be produced by plethora of the uterine system, which, from the engorged state of the capillaries of the uterus, is adequately calculated to induce a separation of the ovum at any period of gestation. Such a condition of the uterus is known to be inimical to the existence and safe repose of the ovum in its cavity: consequently, under such circumstances, conception is not likely to take place; and if it do take place, is likely soon to be followed by a separation and expulsion of the germ. This condition of the uterus may be readily induced during gestation (even in those who have previously enjoyed good health) by the impediment offered to the free return of the blood to the heart, by compression necessarily employed in tight-lacing, as well as the mechanical pressure of the uterus upon the pelvic veins, when that organ is more compressed by the detrusion of the abdominal viscera.

Abortion may also be induced by an opposite condition of the uterine system to that above described: that of anæmia, relaxation, &c.

In ladies who have been tenacious in adhering to the modern fashions from early life, this condition of the system is of common occurrence. In them we find an ample evidence of the debilitating and relaxing influence of modern fashion on the female economy, and more especially upon the functions of the uterine system.

Abortion may likewise be induced by an "inability in the uterus to extend itself beyond a certain size." We can readily imagine this condition of the organ in the victims of the modern laced jacket.

3rd. *Menorrhagia.*—This hemorrhagic discharge may be either active or passive, or at least connected with a plethoric or hyperæmic condition of the uterus, or with a debilitated or anæmic state of the general system. The former condition may be the immediate result of the mechanical impediment offered (by excessive lacing) to the free passage of the blood to the centre of the circulatory system, thereby inducing an engorged condition of the capillaries of the uterus. The latter condition (that of anæmia) may be the immediate or secondary result of this impediment offered to the circulation. The plethoric condition may not, in every instance, result in hemorrhage; but, by inducing menstrual irregularities and derangements, the general system will become chlorotic, and so much debilitated, the uterine capillaries relaxed, and the whole mass of blood so much vitiated and attenuated, as to result in passive menorrhagia.

4th. *Amenorrhœa, Dysmenorrhœa, Leucorrhœa, &c.*—That the many menstrual irregularities which appear to be so very prevalent of late years are, in a great degree, owing to the infatuation of modern fashion, no one of observation and information will deny. It is true there are other causes which are very efficient in the production and perpetuation of menstrual irregularities and derangements, but I think it will be conceded by the reflecting mind that many of those derangements are attributable to female dress, and that much of the suffering and inconvenience to which many females are subject might be obviated if they would but dispense with the laced jacket.

II.—*That excessive lacing does induce constitutional debility in females.*

The practice of tight-lacing, we have seen, is very efficient in the production of uterine derangements, in which the general system of necessity must participate. The whole mass of circulating fluid appears to become deteriorated.

The female, notwithstanding all her native



beauties and perfections of form and constitution, is now compelled to lie down upon the bed of affliction, and deplore the loss of all her fascinating charms. Where is the rosy tint that once decorated these pale and blanchèd cheeks? Where is that sprightly, buoyant, and benignant expression that once sat upon this dejected countenance? Where that symmetrical, that beautiful, that lovely form? Alas! how changed. We now behold the pallid cheek, the lustreless eye, the distorted countenance, indicative of pain and suffering—the emaciated frame and incurvated body, immaturely and untimely drooping into the grave, before half the days allotted to woman have passed away.

Perhaps it may be proper, while upon this division of our subject, to notice some of the evil effects of tight-lacing upon the various organs of the body, and the multifarious diseases that may result therefrom.

The lungs appear to suffer materially from this practice. Any person of observation may satisfy himself of the truth of this assertion, by observing the motions of the chest during respiration. He will observe that it is impossible fully to inflate the lungs; the respiration is short and quick; inspiration is about half as long as expiration, and that there is a considerable interval between expiration and inspiration. During this interval the lungs are inactive, and blood is passing through them without the benefit of the oxygen of the atmosphere, and thus proceeds unoxxygenized to the heart, from thence to be distributed to the various organs of the body throughout the general system.

May not such a perversion of the function of respiration, and consequent unfitness of the blood to subserve the important purposes of nutrition, be considered a very efficient cause of the early development and maturation of tuberculous deposition in the lungs? May it not be regarded a prolific source of that irritable and cachectic condition of the system which appears to characterize the modern fashionable lady? The heart, the stomach, the liver, and indeed almost all the viscera of the thorax, and abdomen appear to be obnoxious to injury from the improper encroachments of the laced jacket, by which are induced, directly and indirectly, a host of diseases known to depend upon a deteriorated quality of the circulating fluid, together with a perverted and deranged nutrition.

Lacing, when carried to excess, is unfavourable to longevity in a high degree, terminating life ere the span be half measured. Show me the matron who has attained her three score years and ten, and I will show you a lady who was a stranger to fashion in her youthful days.

For the purpose of corroborating the position I have assumed, let us draw a contrast between the rustic maid and the city belle—the victim of modern fashion in mature life—when the duties of wife and mother devolve upon them. The former is sprightly, active, and vivacious; her countenance lively, animated, and expressive of good health; her mind buoyant amidst all the troubles and vexations necessarily attendant upon the duties of a mother and housewife; she enjoys the blessings of health and the society of friends; she possesses a calm, serene mind, and is capable of meeting any reverse of fortune with fortitude; she is blessed with healthy offspring, and generally lives to see them grown up and acting for themselves. But the votary of modern fashion, how reversed her condition in after life! Her corporeal powers at an early period begin to evince decay; her intellectual faculties to manifest imbecility; her mind becomes irascible, and her temper fretful and peevish. Such women are generally sterile, or at most conceive but a few times. The first may possibly reach the full term of gestation, after which abortion is a common result. The functions of the generative organs finally become entirely or so nearly suspended as to render all possibility of a future offspring extremely doubtful.

III. *That constitutional debility is transmitted*

*from the mother to her offspring; or, at least, the effects wrought upon the constitution of the mother are felt by her offspring.*

The practice of excessive lacing interrupts, to some extent, the sympathetic communication between the uterus and manimæ, and when the functions of the latter are called into action, they are feebly and but imperfectly performed; consequently, those unfortunate victims to the trammels of this delusive fashion, after the cares and duties of mothers devolve upon them, in many instances, find it impossible to nourish at the breast their tender offspring. And, besides the deprivation of that maternal pleasure which all mothers find in nourishing their own offspring, she is constrained to witness, as the consequence of artificial nourishment, the tortures and pains of disease, and frequently the agonies of death, from the supervention of colic, diarrhœa, or some of the many gastric and intestinal derangements to which children under such circumstances are peculiarly obnoxious. Here it is evident the sins of the mother are entailed on her innocent offspring.

And farther, it is reasonable to suppose, from the morbid condition of the system met with in such women, that, even when milk is secreted in sufficient quantity for nourishment, it is of a very deteriorated quality, calculated to ruin the health, and undermine the constitution of her child.

I have now answered, to the best of my humble abilities, the questions so often propounded to me; if satisfactorily, I shall be truly gratified; if otherwise, I hope a better explication will be furnished by some one better qualified than myself to do justice to so interesting and important a subject.—*Southern Med. and Surg. Journal.*

#### AN ODD CASE.

[To the Editor of the Medical Times.]

Matlock Bath, Derbyshire, Nov. 28.

SIR,—Having, as a constant reader of the *Medical Times*, noticed your abhorrence to quackery in all shapes, I have ventured to trouble you with a few lines, hoping that you will not withhold your valuable aid in the exposition of what at present appears a most atrocious fraud.

There is an institution at Leicester, called "Institution for Diseases of the Chest," conducted by a person who represents himself to be Dr. Maddock, and a brother of A. B. Maddock, M.D., of Harley-street, Cavendish-square, London, the author of "Practical Observations on the Efficacy of Medicated Inhalations in the Treatment of Pulmonary Consumption," &c. The work sets forth various cures of consumption, &c., that have been effected by the author's treatment, and evidently shows he is a man of great practical experience. A copy of it being in the possession of a person residing here, and, labouring under a chest disease, he, under a supposition that the Dr. Maddock, of Leicester, might be as eminent and experienced as the author, communicated with him (Dr. Maddock, of Leicester), to ascertain upon what terms he would give an attendance at this place. An answer arrived, stating the terms, which were acceded to, and the travelling expenses forwarded by Post-office order, as directed. A day or two afterwards, a person representing himself as Dr. Maddock, from the above-named institution, attended and proceeded to the house of his patient. Here he consulted with the patient, his brother (a surgeon), and friends, and concluded by holding out hopes of great relief by the mode of treatment he should prescribe. After this he repaired with the patient's brother to the druggist's shop, in order to prescribe. Strange to say, here he was immediately recognised by the druggist's brother, as a Mr. B——s, late of Leamington, a druggist's assistant. He appeared confused, and retired with the patient's brother from the shop into the street. Meantime, the druggist and his brother arranged, on his return, to tax him with the fraud, as they were both well aware he had been attending the patient, professionally, as Dr. Maddock. Ultimately he returned, and on being taxed with not being Dr. Maddock, but Mr. B——, he most vehemently denied that his name

was Mr. B——, and persisted in asserting his name to be Maddock, and that he was a brother of the Dr. Maddock, of Harley-street, London. After all, I am sorry to say he was allowed to go; and I need hardly add, that Dr. Maddock, of London, has been written to, and an answer has been received denying that he has any brother at Leicester.

I would therefore inquire, through the medium of your columns, whether there be such a person as Dr. Maddock, of the Institution for Diseases of the Chest, at Leicester? and in the next place, whether he has any connection with, or is any relation to, Dr. Maddock, of Harley-street, London? as it is not only right that the public should be made aware whether such a man does exist, but also, whether (if he does) his skill and eminence are at all identical with that set forth in the work above alluded to, by reason of any connection or relationship with the author thereof.

I enclose you my card, and am prepared, at any time, to give up the names of the parties here who have been duped, and prove the foregoing statement. Should you, therefore, give space in your columns to this, it will no doubt deter others from parting with their cash for travelling expenses, until they see a satisfactory reply to this.

I remain, Sir,

Your most obedient servant,  
ANTI-HUMBUG.

P.S. I enclose a note from one of your subscribers, confirming all I have stated.

#### CRAMPS IN SLEEP.

[To the Editor of the Medical Times.]

SIR,—I feel anxious to communicate, through your valuable and widely-extended journal, a *discovery* for the relief of a most distressing complaint, viz., the severe cramps which afflict many persons in bed during sleep. Having myself been for many years a martyr, almost every night, to this torturing malady, and having tried in vain many of the "thousand-and-one" remedies usually prescribed for relief, I was at length led to reflect upon a *fact*, which had hitherto escaped my attention, viz., that while sleeping in a chair, with my lower limbs, if not touching the floor, yet so depending as to form an inclined plane with the whole of my frame, I was in this position *never* disturbed by cramps; and, upon inquiring, I found other sufferers from habitual cramps were under the same predicament. These facts, in connection with some physiological considerations, induced me to put in practice the following plan, which, after a trial of six weeks, has proved decidedly successful. My plan is, to *sleep upon an inclined plane*, which is effected by taking care that the bed (or mattress) should incline at least *twelve inches* from the upper to the lower feet of the bed; and for this purpose the lower feet were cut down, so as to form the requisite inclination. But the inclined plane may also be made (according to my own experience) by an arrangement of mattresses, or by increasing the height of the upper part of the feather-bed, by removing the feathers from the lower extremity. It is scarcely necessary to mention, that the disorder is almost always connected with a weak or imperfect state of the digestive organs; and therefore, although the method now stated for relief will allow the sufferer several indulgences in diet hitherto forbidden, yet there must be limits carefully observed, if he expect to pass his nights *entirely* free from the malady.

I remain, Sir, your obedient servant,

MEDICUS OCTOGENARIUS.

Nov. 28.

Sunderland, Dec. 3.

SIR,—In your *Medical Times* of the 28th ult. you take notice of a case of poisoning by mistake here; and as you may not have learned also, through the same medium, that the coroner's verdict has been entirely shown to be "wrong," by a *post-mortem* examination, performed by three of the most respectable practitioners in town, when no traces of opium could be traced; the body exhibiting



"disease" that would readily account for the "symptoms" before death. As, therefore, all here are satisfied that "it" was a "mistaken verdict"—indeed the public press, since then, has given publicity to it, maintaining the character unspotted, both of Mr. Meldrum and his apprentice, from the charge of negligence, for which they were chargeable—as you are aware such charges or accidents happening tend greatly to injure the interests of the parties charged, you will, therefore, be pleased also to give them "reparation" in an early number of your paper, and you will oblige and do an act of justice to Mr. Meldrum and apprentice.

In the *Gateshead Observer*, of a date since October, you will find special notice taken of it.

Yours, most respectfully,

A SUBSCRIBER.

[We are glad to find that the coroner's jury were mistaken in this case, and we feel pleasure in being enabled to contradict so injurious a report.—ED.]

[To the Editor of the Medical Times.]

SIR,—Would you allow me to say a few words respecting some portion of the correspondence lately admitted into your excellent periodical, particularly with reference to the letter signed "Candidus"? On reading some of the publications of the day, relating to professional subjects, written by and for medical men, I am inclined to ask myself, Where am I—what am I? What is the meaning of the extraordinary change which has lately come over the spirit of certain members of the profession? If the present strange aspect of things has not much confused my mind, I imagine that we were trained by a certain course of study in order to investigate and ultimately to comprehend the various natural and morbid states of the human body, in order to preserve the one and remove the other by certain instruments, tools, or weapons called medicines; these medicines being certain natural or artificial products which the wisdom or observation of former philosophers found, or thought they found, to be more or less effectual for that purpose. Not that these alone were to be relied upon; but they were the more positive, tangible, and efficient agents, to be combined with, and modified by, such other questions as diet, exercise, temperature, and so on. Now, I find I have been altogether mistaken. The practice of the profession on the above principles I find is now called carrying on a "medico-drug trade," and the body of men so engaged are designated as "a drug-selling body, such as the medical profession now is."

Now, it seems to me that those who write and speak thus, whether editors of medical reviews, or correspondents in periodicals, intend to launch their thunders against one of the three following things:—1st. Giving medicines unnecessarily, and to the injury of patients, for purposes of gain; 2nd. Medicines being supplied or "sold" by the medical attendant himself, admitting that the patient must have them from some source; and 3rd. The practice of attempting or professing to cure disease by the administration of any "nauseous drugs" whatever. Now, with respect to the first of these, it surely cannot be necessary to enter into a serious crusade against so dishonourable and base a crime. In every large, almost in every small, body of men, there are unworthy members; but I cannot think that these anti-drug writers intend to charge any considerable number of their brethren with this vile and unmanly practice; and, indeed, the vagueness of their expressions implies something more general than individual criminality. With regard to the second, it is clear that no important principle is involved in it, and that the question has been, now is, and in future will be, decided less as a matter of right and wrong, than as a detail depending upon the position and circumstances of the medical man and his patients. The two parties concerned mutually find in it a practical convenience: the practitioner feels more confidence in the genuineness and accurate compounding of his remedies, is saved from being annoyed and thwarted and talked of by the nature of the medicine being known (and every practical man knows how the

names of opium and calomel alarm many whose state, nevertheless, requires their administration), not to mention that in many places he must either supply it, or his patient go without. On the other hand, the patient naturally expects additional security from the consideration that his medical man's reputation is greatly involved in the purity and accurate dispensing of his medicines, especially when made by those who know his handwriting, and, as it were, under his own inspection. The patient's family is, moreover, saved the trouble of repeated visits to the chemist's shop, often at unseasonable hours, and the patient himself retains the privilege of grumbling at the slowness of his recovery, without his attendant escaping by hinting a doubt, whether or not his medicines have been properly compounded—an innuendo, by the way, of which the prescribers are not slow to avail themselves.

These, I apprehend, are the essential points of the question. Those who oppose the ordinary plan of proceeding of the general practitioners, ground their complaints generally, as your correspondent "Candidus" appears to do, in a silly paragraph towards the end of his letter, about the profit on drugs, on the mode of charging. This appears to me to be away from the point: there is no necessity to make it appear from your bill that your claim is altogether derived from the medicine supplied. You know it is not, and the patient knows it is not. When the prescribers are driven to enlarge on this stumbling-block, in addition to asserting the inherent gentility of their own mode of practice, they exhibit very little confidence in the argumentative bearings of their darling theory.

Our third class of innovators, who appear to have been bitten by Dr. Forbes, are by far the most remarkable of any. They wander about exclaiming that it is absurd to think of curing disease by giving "nauseous drugs," and boldly assert that the public will not bear with it much longer. Now, what should we think of an artist who loudly insisted that all the effect of a fine picture could and ought to be produced without the intervention of colours and brushes? Are these more requisite in one profession, than a variety of internal and external remedies in the other? If these individuals never had any faith in medicine, or have lost it, their course is plain: let them seek some other pursuit which they can conscientiously pursue; let them invest their capital in the purchase of a pump, or a few pounds of lump-sugar, and commence business in an independent manner; but, for heaven's sake, let them no longer continue to read or write in the *Medical Times*, or other publications appropriated to the interests of those engaged in the ordinary practice of physic. A very serious responsibility appears to me to attach to those who are thus endeavouring to undermine the confidence of the public in their ordinary medical attendants. If they are really sincere in their objection to the use of medicines as usually employed, by all means let them go on and prosper; but should they be merely endeavouring to distinguish themselves from the common herd by the singularity of their cry, although the welfare and comfort of the profession and the public be jeopardized thereby, they may rest assured that the time of retribution will ere long arrive, in an accumulation of well-merited public contempt.

ALEC.

[To the Editor of the Medical Times.]

Belfast, Nov. 29.

SIR,—I beg to call your attention to a recent event in our country.

The Lord Chancellor refused to put on the commission of the peace a medical practitioner, in Kilkenny, and assigned as his reason, that practising physicians should not hold the commission. He preferred a pawnbroker to the doctor! The pawnbroker was made a magistrate, and the doctor, who was highly recommended, was insulted, and the whole profession through him.

I think, Sir, the matter is one which should not be passed over by us.

Your obedient servant, M. D.

AFFIDAVITS OF MESSRS. W. J. E. WILSON AND T. WAKLEY.

No. II.

IN THE QUEEN'S BENCH.

THOMAS WAKLEY, of Bedford-square, in the county of Middlesex, Esquire, and WILLIAM JAMES ERASMUS WILSON, of Upper Charlotte-street, Fitzroy-square, in the county of Middlesex, Fellow of the Royal College of Surgeons, severally make oath and say; and first this deponent, Thomas Wakley, for himself saith, that he now is, and continually from the month of February in the year of our Lord one thousand eight hundred and thirty-nine, hitherto has been and is one of the coroners for the county of Middlesex; that he was in that month and year duly elected to be a coroner for the said county of Middlesex; and that ever since he became such a coroner as aforesaid, he has acted, and that he still continues to act, as one of the coroners for that county; that this deponent is also a member of the Commons House of the Parliament of our Sovereign Lady the now Queen. And this deponent further saith, that on the fourteenth day of July last he, this deponent, was waited upon by a police-officer with a letter addressed to him, this deponent, from and purporting to be written by the Rev. Henry Scott Trimmer, the vicar of the parish of Heston, in the county of Middlesex, and a magistrate of the said county, and which letter is in the words and figures, or to the purport and effect, following (that is to say):—

"Sir,—Application having been made to me, yesterday, respecting the funeral of a soldier, who now lies dead in the barracks at Hounslow-leath, I made inquiry of the sergeant, who brought the message, as to the cause of the man's death; which he stated to have been disease of the liver, and said that it had been so ascertained by surgical examination. I told him, a report having reached me that the man had lately been flogged, I wished to know whether it was true. He said, that five weeks since the man had received one hundred lashes, but that he had recovered so as to have been pronounced fit for duty, and that he would have gone to his duty at this time had he not been attacked with the liver complaint, of which he died. I directed the sergeant to make known to the commanding officer my opinion, that under all the circumstances of the case, and looking at the report which was abroad, it was important that an inquest should be held previously to my being called on to perform the funeral service. Four o'clock to-morrow afternoon is the time named by the sergeant as the hour appointed for the funeral; I think it my duty, therefore, to apprise you of the case, in order that you may judge whether or not an inquest will be necessary, and that no time may be lost, as it will of course be important, owing to the heat of the weather, that no unnecessary delay with respect to the interment should take place.

"I have the honour to be, Sir,

"Your most obedient servant,

"H. S. TRIMMER.

"Heston Vicarage, near Hounslow,  
July 14, 1846."

And this deponent further saith, that in consequence of such letter he wrote a letter to the constable of Heston, and sent the same by the said police-officer to the said constable at Heston, directing the said parish constable to go to the said barracks at Hounslow, and request to see the body of the said soldier mentioned and referred to in the said letter of the said Reverend Henry Scott Trimmer, and make inquiries as to the cause of the death of the said soldier; and he, this deponent, in and by his said letter, also directed the said parish constable to show the same letter so addressed to him, if requisite, to the officers at the said barracks. And this deponent further saith, that about one hour after he had, as aforesaid, sent the said letter to the said parish constable at Heston, the said parish constable, whose name is William Brent, called at the residence of him, this deponent, in Bedford-square; that the said William Brent informed this deponent, that he had been sent by Henry Pownall, Esquire, one of the magistrates for the said county of Middlesex, and who resided at Spring-grove, in the parish of Heston,



aforesaid, to make known to him, this deponent, the death of the said soldier at Hounslow Barracks, and whose death had, as it had been rumoured, been caused by a flogging, under the sentence of a court martial. And this deponent further saith, that he thereupon informed the said William Brent of the said letter of instructions which he, this deponent, had sent to him, as aforesaid, and which letter he, this deponent, stated he would find on his return to Heston; and he, this deponent, at the same time requested the said William Brent to make the inquiries mentioned in the said letter to the said William Brent, and to report without delay to this deponent the result of the said William Brent's inquiries at the said barracks. And this deponent further saith, that in consequence of the letter of the said Reverend Henry Scott Trimmer, and of the communication made to him, this deponent, by the said William Brent, and from the said William Brent's report made to this deponent, in consequence of the said directions given by him, this deponent, to the said William Brent, he, this deponent, issued his warrant, directed to the constable of the said parish of Heston aforesaid, commanding him to summon a jury of the said parish personally to appear before him, this deponent, as such coroner as aforesaid, on the fifteenth day of the said month of July, at the public-house called or known by the name of the "George the Fourth," situate in the Staines road, in the said parish of Heston, and then and there to inquire touching the death of Frederick John White. And this deponent further saith, that the said Frederick John White was the soldier mentioned and referred to in the said letter of the said Henry Scott Trimmer. And this deponent further saith, that he was informed and believes the said Frederick John White had in his lifetime been a private in her Majesty's 7th Regiment of Hussars, and had died in the hospital of the said regiment, at Hounslow Barracks aforesaid, on the eleventh day of July last, having, as this deponent has been informed and believes, previously and on the fifteenth day of June last, received in pursuance of the sentence of a military district court martial one hundred and fifty lashes, inflicted upon the back and shoulders of the said Frederick John White, by two regimental farriers, with whips, or cats-of-nine-tails. And this deponent further saith, that on the said fifteenth day of July last, he, this deponent, as such coroner as aforesaid, for the purpose of taking an inquest upon the dead body of the said Frederick John White, held a court in the said public-house, and that at such court a jury, by him, this deponent, as such coroner as aforesaid, duly summoned in that behalf (that is to say) by the said warrant, attended for the purpose of such inquest, and the said jury were duly sworn, on view of the body of the said Frederick John White, at the said Hounslow Barracks. And this deponent further saith, that finding, on such view of the body of the said Frederick John White, that a *post-mortem* examination had been made of the body of the said Frederick John White; and it appearing from an inspection of the said body that the back of the said dead body had not been further examined than by the mere removal of a portion of the skin thereof, and that the muscles and spine of the said dead body had not been examined by a dissection thereof; and this deponent and the said jury having been informed that the surgeons who had made such incomplete examination had come to a final conclusion as to the cause of death, and had given an official certificate thereof, the nature or terms of which he, this deponent, was wholly unacquainted with, he, this deponent, at the said court so held by him as aforesaid, on the said fifteenth day of July last, requested the said jury to nominate a surgeon in whose judgment and character they felt confidence, whom the said jury would wish to make a complete examination of the said dead body, in order that at an adjourned sitting of the said court, for the purpose of taking the said inquest, the surgeon so nominated might, after he had examined the said body, attend; and, in conjunction with the said regimental surgeons (that is to say) the said other surgeons, who had examined the said body as aforesaid, state his opinion as to the cause

of the death of the said Frederick John White. And that thereupon, after deliberating for a short time, the said jury nominated Mr. Horatio Grosvenor Day, of Church-street, Isleworth, in the parish of Isleworth, in the said county of Middlesex, as a person to examine the said body; and that, in consequence of such nomination, this deponent made and signed the usual order in such cases, directing the said Horatio Grosvenor Day to make a *post-mortem* examination of the said body; and that this deponent then adjourned the said court and the further proceedings, for the purpose of continuing the said inquest, to the twentieth day of July last, at the said public-house. And this deponent further saith, that according to the said adjournment, he, on the said twentieth day of July last, again held the said court, and that the said jury then met accordingly at the said public-house, for the purpose of proceeding with and taking the said inquest. And this deponent further saith, that after having taken evidence as to the nature and extent of the punishment inflicted upon the said Frederick John White, and of his condition previously and subsequently thereto, and down to the time of his decease, he, this deponent, was about to proceed with the medical testimony, when, from a remark made by the said Horatio Grosvenor Day, before he was sworn to give evidence, he, this deponent, was induced to ask the said Horatio Grosvenor Day, whether he had examined the muscles of the back and the spine of the dead body of the said Frederick John White; when the said Horatio Grosvenor Day stated that he had not done so, considering it as unnecessary; that he had, subsequently to the said fifteenth day of July last, examined the said body, and considered that he had ascertained the cause of the death of the said Frederick John White, although he had not examined the back and spine of the said body, and that he did not think it necessary to examine the same. And this deponent further saith, that he thereupon observed to and before the said jury, that he considered the said Horatio Grosvenor Day, by having omitted to fully examine the back and spine of the said body, by a proper dissection, had involved the said court (meaning himself, this deponent, and the said jury) in a difficulty, and that consistently with the duty, which he, this deponent, had, as such coroner as aforesaid, to discharge in that behalf, he certainly, in such case, could not satisfactorily take any medical testimony as to the cause of the death of the said Frederick John White, until a complete *post-mortem* examination of the said body had been made; and this, in the judgment and belief of this deponent, was the more necessary, as it appeared on the said inquest that the deceased had lost the use of his lower extremities two days before his decease. And this deponent further saith, that at the close of the business of the said sitting, on the said twentieth day of July, and after the room had been cleared of strangers, he, this deponent, at the urgent and repeated request of the said jury, that he would name some surgeon residing in London, who had no connection with any of the parties concerned, or with that neighbourhood, to make the examination of the said body, he, this deponent, stated to the said jury, that he should appoint the said other deponent, the said William James Erasmus Wilson, to complete such examination. And this deponent further saith, that he then adjourned the said court, and the further proceedings, for taking the said inquest to the twenty-seventh day of July last at the said public-house. And this deponent further saith, that in returning from Heston to London, on the said twentieth day of July last, and passing along Oxford-street in his carriage, he, this deponent, met the said William James Erasmus Wilson, and told him that he, this deponent, had just returned from an inquest at which he, this deponent, had named the said William James Erasmus Wilson as a surgeon to complete the examination of a dead body, stating that it was the case at Hounslow; and that the surgeons who had already examined the body had omitted to examine the back and the spine thereof; and that he, this deponent, asked the said William James Erasmus Wilson, if it would be convenient for him to do so, and to attend

and give evidence upon the inquest; and, the said William James Erasmus Wilson having consented to make the examination, he, this deponent, afterwards signed and sent to the said William James Erasmus Wilson the usual and legal order for so doing. And this deponent further saith, that from the time when he saw the said William James Erasmus Wilson in Oxford-street as aforesaid, until the examination of the said William James Erasmus Wilson on the twenty-seventh day of July last, as hereinafter mentioned, he, this deponent, had no communication whatever with the said William James Erasmus Wilson upon or relative to his the said William James Erasmus Wilson's examination of the said dead body, or the result thereof, or the cause of the death of the said Frederick John White; and that until the said William James Erasmus Wilson gave his evidence as hereinafter mentioned, this deponent was ignorant of the result of such examination and of the opinion which the said William James Erasmus Wilson had formed as to the cause of the death of the said Frederick John White, and of the evidence which the said William James Erasmus Wilson would give as to the cause of such death. And this deponent further saith, that the body of the said Frederick John White having been buried, he, this deponent, issued his order for the exhumation of the same, and that the said order for the exhumation of the said body was delivered to the constable of the said parish of Heston, accompanied, as requested by the said jury, with directions that the regimental surgeons should not be present at the examination to be made of the said body, after the same should be exhumed. And this deponent further saith, that he selected the said William James Erasmus Wilson to complete such examination as aforesaid, because he, this deponent, considered him specially qualified to make such examination, from his having devoted much time and attention to the investigation of the structure and diseases of the skin, upon which subjects he had published elaborate works. And this deponent saith, that he has long known the said William James Erasmus Wilson intimately, as a surgeon and anatomist of great acquirements; that he is a Fellow of the Royal College of Surgeons of England, consulting surgeon to the Saint Pancras Infirmary, London, and lecturer on anatomy and physiology in the Middlesex Hospital School, and is a gentleman of known ability and integrity. And this deponent further saith, that whilst he has been such coroner as aforesaid, he has occasionally issued orders to the said William James Erasmus Wilson to make *post-mortem* examinations at inquests; but that he has not employed him so frequently on such occasions as many other surgeons, and that he, this deponent, has not during the seven years and upwards for which he has been such coroner as aforesaid, issued twenty-five orders to the said William James Erasmus Wilson to make *post-mortem* examinations, although he has during that period paid upwards of one thousand four hundred pounds to medical men as fees, for making *post-mortem* examinations and giving evidence at inquests held by him. And this deponent further saith, that according to the last-mentioned adjournment, he, on the twenty-seventh day of July last, again held the said court, and that the said jury then met accordingly at the said public-house, for the purpose of taking the said inquest; and that after hearing much evidence, which was adduced and given to and before the said court and jury, relative to the cause of the death of the said Frederick John White, he, this deponent, on the day and year last aforesaid, again adjourned the said court and the further proceedings for taking the said inquest to the third day of August last, at the said public-house. And that, according to the said last-mentioned adjournment, he, this deponent, on the said third day of August last, again held the said court, and that the said jury then met accordingly at the said public-house, for the purpose of taking the said inquest. And this deponent further saith, that on the said twenty-seventh day of July, James Low Warren, John Hall, and Francis Reid, and the said Horatio Grosvenor Day, and William James Erasmus Wilson, were, for the first time, severally examined by him, this deponent, upon the said inquest; and that, until those gentlemen were



so examined on the said twenty-seventh day of July, he, this deponent, was not aware and did not know what were the opinions of the said several surgeons, or any of them, as to the cause of the death of the said Frederick John White. And this deponent further saith, that the said William James Erasmus Wilson, upon his said examination, gave evidence as to the state and condition of the back and spine of the said Frederick John White, and the said other surgeons upon the said examination also gave evidence as to the cause of the death of the said Frederick John White; and that the said William James Erasmus Wilson, in giving his said evidence as aforesaid, stated that he had no doubt whatever that the death of the said Frederick John White happened in consequence of the said lashes which were inflicted upon him as aforesaid; but that the said John Hall, James Low Warren, and Francis Reid stated, that they were of opinion that the death of the said Frederick John White did not happen in consequence of, and was not connected with, such lashes. And this deponent further saith, that after he and the said jury had heard all the evidence offered and given to and before them as to the cause of the death of the said Frederick John White, this deponent did on the said third day of August last proceed to sum up and state to the said jury the said evidence, and made such observations thereon and upon the case as in his, this deponent's, opinion, and according to the best of his judgment, it was proper for him, as such coroner as aforesaid, and in due discharge of his duty in that behalf, to make. And this deponent further saith, that after he had so summed up, the said jury retired in charge of the said William Brent, as such constable, to a private room to consider their verdict, and that after an absence, as this deponent verily believes, of upwards of an hour, the said jury returned into court and delivered to this deponent the following verdict, that is to say—"That on the eleventh day of July, one thousand eight hundred and forty-six, the deceased soldier, Frederick John White, died from the mortal effects of a severe and cruel flogging of one hundred and fifty lashes, which he received with certain whips on the fifteenth day of June, 1846, at the Cavalry Barrack, on Hounslow Heath, at Heston, and that the said flogging was inflicted upon him under a sentence passed by a district court martial, composed of officers of the 7th Regiment of Hussars, duly constituted for his trial. That the said court martial was authorized by law to pass the said severe and cruel sentence, and that the said flogging was inflicted upon the back and neck of the said Frederick John White by two farriers, in the presence of the said John James Whyte, the lieutenant-colonel, and James Low Warren, the surgeon, of the said regiment; and that so, and by means of the said flogging, the death of the said Frederick John White was caused." And this deponent further saith, that the said jury, in giving and returning the said verdict, stated that they "could not refrain from expressing their horror and disgust at the existence of any law amongst the statutes or regulations of this realm, which permits the revolting punishment of flogging to be inflicted upon British soldiers; and at the same time, the jury implore every man in the kingdom to join hand and heart in forwarding petitions to the Legislature, praying in the most urgent terms for the abolition of every law, order, and regulation, which permits the disgraceful practice of flogging to remain one moment longer a slur upon the humanity and fair name of the people of this country." And this deponent further saith, that throughout the whole of the business of, or in any manner relating to, the said inquest, or to the evidence given thereon, or to, the examination of the said body, or to the appointment of the said William James Erasmus Wilson to examine the same as aforesaid, he, this deponent, was actuated solely and exclusively by a desire efficiently and conscientiously to discharge his duty in that behalf, as such coroner as aforesaid, and not by any mercenary, political, or other improper motive whatsoever. And this deponent further saith, that he, this deponent, is the person mentioned, referred to, and described as "Coroner Wakley," "Wakley," and "Coroner," in the defamatory libel contained in the public newspaper hereunto annexed, entitled

the *Medical Times*, purporting to be No. 357, volume xiv. (meaning volume the fourteenth), dated "London, Saturday, August 1st, 1846," and published, as this deponent believes, on the same day, and which said libel is inserted and contained in those pages of the said newspaper which are numbered 355, 356, and 357, and commences in the first column of the said page, which is numbered 355 of the said newspaper as follows, that is to say—

"Saturday, August 1, 1846.

"See how yon justice rails upon you, simple thief. Hark, in thine ear, change places, and, handy-dandy, which is the justice, which is the thief. \* \* \* 'Get thee glass eyes, and, like a scurvy politician, seem to see the things thou dost not.'—*Learn*. Never were we more convinced that in the indignation at a large abuse"—

And concludes in the first column of that page of the said newspaper, which is numbered 357, as follows, that is to say—

"Certainly no surgeon would feel comfortable with regard to the state of his patient, if he were aware of such dangerous proximity."

And this deponent further saith, that the said libel relates to and is of and concerning this deponent, the said Frederick John White, his death, the cause thereof, the said examinations of the said deceased body of the said Frederick John White, the said inquest, as to the cause of the death of the said Frederick John White, the conduct of this deponent, as such coroner as aforesaid, upon and with respect to the holding and taking of the said inquest, the conduct of this deponent in and relative to the ordering and directing to be made the said examinations, which he, as aforesaid, directed to be made of the said dead body of the said Frederick John White, and other premises and matters herein before stated and set forth; and that John Hall, Doctor Hale, James Low Warren, Francis Reid, Doctor Reid, Mr. Horatio Grosvenor Day, and Mr. Erasmus Wilson, in the said libel mentioned, are the same persons, as the said John Hall, James Low Warren, Francis Day, Horatio Grosvenor Day, and William James Erasmus Wilson herein before mentioned. And this deponent further saith, that he, this deponent, is the person mentioned, referred to, and described as "Mr. Wakley," "The Coroner," "a popularity-hunting coroner," and "the honourable member for Finsbury," in the defamatory libel contained in that page of the said newspaper hereunto annexed, which is numbered 359, in the second or middle column of that page; and that the last-mentioned libel, which is hereinafter described and referred to as the said libel secondly above mentioned is entitled as follows, that is to say—"Mr. Wakley (meaning this deponent), and his *fidus Achates*" (meaning the said William James Erasmus Wilson), commences as follows (that is to say):—"Sir,—In reading the evidence of Mr. Erasmus Wilson before the coroner, at Hounslow, on the following case"; and concludes as follows, that is to say:—"I should be inclined to think the honourable member for Finsbury demented, and his garrulity at the Hounslow inquest a melancholy exhibition of an effete intellect. FAIR PLAY, July 28th." And this deponent further saith, that the said libel, secondly above mentioned, relates to and is of and concerning this deponent, as such coroner as aforesaid, and his conduct as such coroner as aforesaid, upon and with respect to the holding and taking of the said inquest, and the ordering and directing the said William James Erasmus Wilson to examine the said dead body and the back and spine thereof; and that the same libel relates to and is of and concerning the said William James Erasmus Wilson, being, and who is one and the same person, who in the same libel is called Mr. Wilson; and that the same libel also relates to and is of and concerning the said examination made by the said William James Erasmus Wilson of the said dead body, the evidence given by the said William James Erasmus Wilson to and before this deponent as such coroner as aforesaid and the said jury upon the said inquest, and the conduct, motives, and behaviour of the said William James Erasmus Wilson on those occasions. And this deponent further saith that in and upon the holding of the said inquest his this deponent's sole object and purpose

was to discover the cause of the death of the said Frederick John White, and duly, efficiently, properly, and to the best and utmost of his power and ability to do and discharge his duty as such coroner as aforesaid; that he was not upon the occasion of holding and taking the said inquest actuated or influenced by any of the sinister and improper motives imputed to him in and by the said first-mentioned libel, nor had he in view, nor did he wish or endeavour to attain, effect, obtain, or accomplish, any such unworthy, corrupt, or criminal purposes or objects as in and by the said first-mentioned libel in that behalf alleged, insinuated, or imputed to him; that he did not, upon the holding or taking of the said inquest, wish or endeavour to prove or to cause it to appear that any person had been guilty of murdering the said Frederick John White, or had criminally caused his death; nor did this deponent at or upon the holding or taking of the said inquest, or at any other time as in the said first-mentioned libel alleged, coax private soldiers, or any private soldiers, or any other person into conjectural charges, or try to bully medical witnesses, or any medical or other witness, out of honest convictions; or suggest, insinuate, applaud, encourage, assail, twist, twirl, or manœuvre in every or any shape, form, or direction, to conjure up against an honest or any other practitioner a fictitious semblance of murder, as in the said first-mentioned libel alleged; nor did this deponent, either at or upon the taking and holding of the said inquest, or at any other time, attempt or endeavour to get up against Dr. Warren in the said first-mentioned libel mentioned, being the said James Low Warren, or failing him, against Colonel Whyte in the said first-mentioned libel mentioned, or failing him, against the farrier in the said first-mentioned libel mentioned, a colourable semblance of murder as in the said first-mentioned libel insinuated, imputed, or alleged; and that this deponent did not by his conduct, or by anything which he either said or did at, upon, or relative to the holding or taking of the said inquest, wish or intend, to excite or create a public sensation to help his fortunes in a forthcoming election or any other public or political sensation whatsoever, or wish or intend to puff himself with the public as a friend to the poor. And this deponent for himself further saith that he has never or in any manner whatsoever participated or been partner with the said William James Erasmus Wilson in any fee or fees whatsoever payable or due to or received by the said William James Erasmus Wilson for any *post-mortem* or other examination of any human or other body whatsoever made by the said William James Erasmus Wilson, or any *post-mortem* fee or fees as in and by the said libel first above-mentioned alleged or supposed; and that he this deponent never charged as paid to the said William James Erasmus Wilson by this deponent any fee, fees, or money whatsoever which had not been previously fully and wholly paid by this deponent to the said William James Erasmus Wilson, as in and by the said first libel is insinuated or alleged; and that he did not directly or indirectly order, instruct, or suggest the said William James Erasmus Wilson to make his examination or shape his evidence thereunder in any manner howsoever, so as to give any particular result, turn, or bias whatsoever, as in the said second libel is supposed, insinuated, or alleged. And this deponent, the said William James Erasmus Wilson, for himself maketh oath and saith that he made an examination of the said dead body of the said Frederick John White, being the said examination thereof hereinbefore mentioned; and that, after having made such examination of the said dead body, he, upon and at the taking and holding of the said inquest on the said twenty-seventh day of July last, and the said third day of August last, gave evidence and was examined as a witness as to the cause of the death of the said Frederick John White; and this deponent, the said William James Erasmus Wilson, further saith that he made his said examination of the said dead body, and gave evidence as aforesaid, with the sole and exclusive view, and for the sole and exclusive purpose, first of discovering, and afterwards and at and upon the taking of the said inquest, and proving what was the cause of the death of the said Frederick John White, and



not from the motives or for the purpose or with the view in that behalf imputed to him in and by the said libel secondly above mentioned, and not in order to puff himself into practice as in and by that libel supposed, insinuated, or alleged; and that he, this deponent, did not receive any order, direction, instructions, hint, suggestion, or communication whatsoever from the said Thomas Wakley or any person or persons whomsoever as to the evidence to be given by him on the said inquest in relation to the result of such examination, or to shape his examination, of the said body of the said Frederick John White, or his evidence as to the result of such examination, in any manner or form or with any particular view or result whatsoever, as in the said second libel supposed, insinuated, or alleged; and this deponent further saith that he hath carefully perused that part of this affidavit which is made by the said Thomas Wakley, and that the same, so far as the same relates to matters within the knowledge of him, this deponent, is perfectly true and correct; and that this deponent verily believes that the whole of the same part of this affidavit is perfectly true and correct.

THOMAS WAKLEY.

W. J. ERASMUS WILSON.

Sworn by the above-named deponent Thomas Wakley, at Ipswich, in the county of Suffolk, this 9th day of November, 1846, before

S. B. JACKAMAN,

A Commissioner for taking Affidavits in the Court of Queen's Bench.

Sworn by the deponent William James Erasmus Wilson, in court, this 10th day November, 1846.

By the Court.

#### MEDICAL SCHOOL IN BELFAST.

We understand that overtures have been made to the Government to connect the Belfast Medical School with the Provincial College in that town. Surely nothing can be more reasonable or desirable than such a junction. One of the alleged motives for refusing the new College to Armagh was, the existence of this school in the rival town. Not to make it available in the end would be a sad piece of absurdity.

But the grounds on which we desire to see a medical school of high character and authority in Belfast are apart from local considerations. More medical students leave Ulster than any other province in Ireland, and a large proportion of them go to the Scotch Universities. It is a sad sight to see many of these earnest, vehement young men, return infected with Scotch philosophy, utilitarianism, and indifference to Ireland—to see them come back worse men and worse citizens than they left. Belfast is certainly not the Athens to which we would send our youth to learn public virtue and public spirit; but, nevertheless, it is a great improvement on the vice and selfishness of Glasgow or Edinburgh. The advantage of keeping them at home is sufficiently manifest—so manifest, indeed, that we despair of its being accomplished.—*Nation*.

#### QUARANTINE.

[FROM THE "DAILY NEWS."]

SIR,—I am much pleased to observe, by one of the leading articles in your paper of yesterday, that you have taken up the important subject of quarantine in reference to the plague. Will you allow me to notice very briefly one passage in this article, with the view of preventing the possibility of any mistake, on the part of the public, upon a vital question connected with this matter? You justly remark that the recent report of the French Academy of Medicine is a very full and complete one, and examines in detail all the facts with regard to the plague that could be considered to have any bearing on the quarantine laws. It is then added—"In this report plague is stated to be *sporadic* and *epidemic*. The former is not transmissible by contagion, but the latter is, and that within certain epidemic *foci*. The contagious nature

of the disease is thus admitted." These statements are strictly and entirely correct, if the terms "contagion" and "contagious" be used in a generic sense, to designate the transmission of a disease from one person to another, no matter how this transmission has taken place. The doctrine hitherto almost universally held, and on which the existing system of the quarantine laws of every country has been founded, is that direct and immediate contact with the sick, or with objects which they had touched, is indispensable for the transmission of the plague. Now, one of the most important objects of the French report is to expose the utter fallacy of this long-cherished, but absurd, idea. The second chapter of Part III. is expressly devoted to the consideration and solution of this very point. The plague having been shown to be not transmissible by contact, even in epidemic *foci*, the commissioners proceeded to inquire whether it is liable to propagate itself by contaminating the atmosphere with pestiferous miasma or effluvia, proceeding from the bodies of the sick, and capable of producing the disease in those who are exposed to their influence; in other words, whether the plague is *infectious*? This is the question that is so ably discussed in the fifth chapter of the same part, and the answer given is to this effect—"In epidemic *foci*, the plague is transmissible by the miasma which emanate from the bodies of the infected, and by the *foci* of infection thereby produced." If the conclusions, therefore, of the French report are admitted—and no candid man, I think, can hesitate to do so—the result will be, that we must declare that the plague is *non-contagious*, i. e., non-transmissible by contact, but that it is *infectious*, i. e., transmissible by contamination of the atmosphere.

GAVIN MILROY, M.D., &c.

Fitzroy-square, Nov. 20.

#### GOSSIP OF THE WEEK.

FRENCH VETERINARY MEDICINE.—The advantages resulting to the French veterinary student, from being obliged to perform every description of operation on the living animal previous to obtaining a diploma, are obvious. When he meets with a difficult case, on first entering into practice, which requires an arduous operation, he is able to perform it with credit to himself and advantage to his employer; unlike many veterinarians of our own country, who, from the defective mode of education previous to the recent Royal Veterinary charter, when they first entered into practice, could not perform the most trivial operation, although such names as those of Sir A. Cooper, Sir Charles Bell, Sir B. Brodie, Dr. Paris, and of other men equally celebrated, were attached to their diplomas. In contradiction to the statements of your correspondent, I cannot refrain from eulogising the great efficacy of the Alfort School. The time required for study at the establishment is from three to four years, during which period the pupils are obliged to be residents in the institution. There is an entrance examination to test the scholastic education of the candidate, which must be liberal and comprise mathematics and natural philosophy. The hours of study are fixed, as also are the subjects forming the special courses of each year. There are periodical examinations to test progress, and, if found deficient, the pupil is put back a year. If this occur more than a certain number of times he is expelled. The curriculum of study requires a thorough acquaintance with chemistry, natural philosophy, botany, materia medica, therapeutics, anatomy, physiology (veterinary and comparative), external conformation of domestic animals, hyæan, pathology, the principles and practice of veterinary medicine, and operative surgery. To these are added veterinary jurisprudence.—*A Correspondent of the Times*.

USE OF BENZOIC ACID IN NOCTURNAL INCONTINENCE OF URINE.—M. de Fraene, surgeon-accoucheur at Tubize, gives an account of the case of a girl, aged fifteen years, who, after several attacks of acute rheumatism, suffered from nocturnal incontinence of urine, which, from false delicacy on the part of the mother, was neglected

for several months. He at first prescribed an aromatic and stimulant treatment, but this not proving effectual, and remembering that benzoic acid had been recommended in similar cases, he had recourse to this remedy. The young girl took at first two pills, night and morning, for four days, without effect; the dose was then doubled. From the first evening after taking the increased dose the incontinence of urine ceased, and did not return. The patient continued the remedy for several days, in the same doses, and afterwards it was progressively decreased. The cure was complete.—*Gaz. Med.*

THE DEPUTY CORONER AND THE MARYLEBONE VESTRY.—On a motion for calling a special meeting to investigate the duties of the inspectors of the out-door poor, Mr. Mallalieu said that Mr. Kitchener, the foreman of the jury, had told him that the jury generally considered there was more blame attached to the family of the Mordaunts than to the parochial officers, and he (the foreman) was much opposed to the censure conveyed by the verdict, but had a most unruly jury to contend with. The chairman thought the foreman of the jury ought to have expressed these sentiments to the coroner. Mr. Potter said he thought the term unruly could not properly apply to the jury; on the contrary, they were too subservient, in submitting to be made the tools of the deputy coroner. Mr. Mills dictated the verdict in the case of Louisa Mordaunt, as he had since done in the case of Joseph Woodward, in St. Pancras. Moreover, he (Mr. Mills) had not the decency to cover his verdict by permitting the jury to write it, but had supplied it in his own handwriting. After some further observations on the conduct of the deputy coroner, the motion was carried and the board adjourned.—Mr. Mills has since written to say that he only threw the verdict into legal phraseology. The parish of St. Pancras have resolved, we see, to proceed against Wakley and Mills for an inflammatory letter in the *Times* by the latter, pending an inquest over which he presided.

OBITUARY.—Aug. 11, at Cape Coast Castle, Western Africa, from the fever of the country, John Lilley, Esq., aged 39, colonial surgeon.—Nov. 19, suddenly, from apoplexy, aged 36, J. W. Costen, M.D., of Southam.

#### MORTALITY TABLE.

For the Week ending Saturday, Dec. 5, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES.....	1050	1000	968
SPECIFIED CAUSES...	1043	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	164	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	80	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	169	151	157
Diseases of the Lungs, and of the other Organs of Respiration.....	361	313	294
Diseases of the Heart and Blood-vessels.....	54	29	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	90	70	72
Diseases of the Kidneys, &c.	15	8	7
Childbirth, Diseases of the Uterus, &c.	10	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	12	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	3	2	2
Old Age.....	55	66	67
Violence, Privation, Cold, and Intemperance.....	30	27	26



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A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

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*Reliance upon Patients' statements; pain a frequent complaint of impostors—illustrations; unintentional deception from fear, over-sensibility, and too emphatic language; suggestive form of questioning—instances of its fallacy; discretion in forming judgment upon a case; Patients identify pains with particular organs; liability to be wrong—illustrations; complications of seemingly simple diseases; pathological relations of remote organs; general view of these things. Varieties of headache—from nervous debility, the issue of constitutional abuse, dyspepsia, the douloureux, rheumatism, syphilis, amenorrhœa, constipation, pregnancy, uterine disease, hemorrhoids, &c. Varieties of cough—from liver disorder, phthisis, nervousness, hypertrophy of right ventricle of heart, gout, amenorrhœa, worms, dyspepsia. Functional relations of the stomach and other organs—illustrations.*

GENTLEMEN,—Our last lecture was terminated by some cautions respecting the giving of undue credence to patients' statements, especially about their pains. I gave you some illustrations in proof of the desirableness of always thinking, in some wise, for yourselves, in the face of the details of others. On no subject are patients more apt to make mistakes than on that of pain; and, perhaps, no other symptom is more available as a vehicle for imposture. The man who complains of deep-seated suffering in this part or in that, makes a somewhat puzzling reply to your expressions of doubt, when he tells you that, "surely he ought to know whether he be in pain or not." To a certain extent this is true, but you must not credit it implicitly. In the first place, there may be some secret inducement to deceive you. A schoolboy will feign all manner of pains to get a holiday, or escape a task; so will a pauper to get parish pay; so will an unprincipled man, who has little work to do, or little inclination to do it, and can receive a comfortable weekly allowance by being idle and throwing himself upon the resources of his club-box. I was once consulted by an actress of our theatre, now, I believe in London, for a series of pains somewhat anomalous both in situation and general character. They were so unlike actuality, and were told with such an air of superficial impressiveness, that I was quite inclined to believe the lady was the dupe of her own fancy, or that she had got her task of complaint by heart, for the sake of playing the cheat. In the latter opinion I was confirmed, when she requested me, after having given her a few general directions about the management of her health, to give her also a

certificate to say that she would be incompetent to her professional duties for a week or more! This I at once declined to do, for the simple reason, as I told her, that I did not believe any such thing. I was curious to know what could be the motive of all this, and called upon the manager, Mr. Simpson, to make inquiry about it. I then found that my eccentric patient was unhappily the victim of thorough idleness, and, moreover, having had assigned to her a part somewhat difficult and fatiguing, she had been heard to vow that she would escape it by feigning illness, and obtaining a physician's testimonial to her ailment.

In the course of your professional duties, you will meet with frequent instances of attempted deception, which experience and common sagacity will enable you to discover and to defeat. I mention the subject now as a matter of information with which you ought to be made familiar.

In other cases, again, patients will unintentionally deceive themselves and you, in reflecting upon and describing their pains. Some people are so cowardly by nature that the smallest suffering, which would pass unheeded with well-regulated minds, they construe into an enormity that might be threatening their very lives. Others, you find delicately constituted, and so susceptible of pain that the merest twinge agonizes them. They are both unduly apprehensive of suffering, and deficient in fortitude to resist it. It is a radical defect of organization, and is very manifest in certain of the inferior animals. Some years back, when engaged in a series of physiological experiments, it often occurred to me to observe the sullen indifference with which a bull-terrier dog will bear vivisection, in comparison with a mongrel spaniel, and others of like breed. A monkey, you know, is a particularly vivacious and excitable animal, and one of the greatest curs in existence. I once performed a little operation upon one, belonging to Dr. Perey of this town, to cure him of a disgusting habit common to his species; and never shall I forget the amount of kicking and screaming we had to contend with. For the quantity of mischief done, the expressions of pain were actually ludicrous.

There is a third class of people, who unintentionally deceive you by the manner in which they describe their sufferings. These are they who always deal in heroic language. Diminutives they never condescend to: everything they talk about is the "largest," or "smallest," the "se-

verest," the "most excruciating," and so on. When they mention pain, no matter where situated, or what its nature, it is always of the agonizing quality. You remember an out-patient of the hospital who has often amused us with her energetic vocabulary; the last time we saw her, she was quite tragical on the subject of the frost.

You see, hence, the desirableness of receiving with some degree of qualification what people are occasionally apt to say about their sufferings. To believe all they tell you, is to be led into an error of diagnosis, and perhaps to imagine serious mischief where really none exists. Of course this would lead to error of treatment; and let me tell you it is quite enough to employ potential remedies that are rationally indicated, without using them extravagantly and in the dark.

In addressing your patients, avoid the suggestive form of questioning. Your object should be to lead them to tell the simple truth of themselves. If, to show your own sagacity, and impress your hearer with a supreme belief how very far-sighted you are, you anticipate his tale, he may perhaps furnish you with information the reverse of trusty. If you commence by enunciating the wonderful falsehood that you see at once what is the matter with him, he will be likely to take you at your word, and say yes to everything you ask him, if he imagine you solicit such answer. Never suggest the nature of the reply by saying to a patient, "You do feel this, or that." It will almost always bring a response affirmatively. Some people will be weak enough to think that you will be pleased with this form of reply, and make it accordingly; others, crediting your sagacity rather than their own senses, will say yes, in a belief that, though they have not got the symptoms you speak of, they ought to have, and therefore assume them in due form; a third party may answer in this wise merely to play a joke upon you, or to amuse themselves in watching what you will do with their grave eccentricities. You cannot be too discreet, deliberate, or determined (when your grounds of judgment are rational and conclusive), with patients. Never let them divert or drive you from what an unprejudiced conviction says is your duty. A frequent habit with people, in complaining of pain, is to identify it with some organ or other. In doing this, they are much oftener wrong than right in their opinion. You remember an out-patient of the hospital, about a week back, complaining of pain in his heart. On my asking him where his heart and pain were, he put his finger upon the epigastrium. Now, to have



credited this man's statement, and to have only superficially examined him, would have been to conclude that there was something wrong about his heart, especially as he had a quick and somewhat irregular pulse. This is a very common pulse in some forms of flatulent dyspepsia, when the accumulation of gas in the stomach and bowels really produces some feeling of suffocation in the patient, and often interferes mechanically with the free action of the heart. All his unpleasantness and pain subsided, as I told you they would, after a mild course of vegetable tonics, with ammonia and resinous purgatives, with assafoetida. I believe the very next patient we saw after this man was a woman, complaining of distressing pain in her chest. I asked her if she had any cough or difficulty of breathing, especially in hazy weather; if the pain were increased in walking up hill, or up stairs; to all of which she said, *no*. I then asked her to point to the particular situation of her pain, and you remember she put her hand upon the epigastrium. The lower orders of people almost invariably call the stomach the chest, and the entire abdomen the stomach. To have passed hurriedly over this woman's case, and credited her statement, would have been to suggest a line of practice very different to what we pursued, and which would no doubt have been attended with very different results. As in the former case, we neither leeches, nor blistered, nor plastered the region of the heart, so in this one we prescribed no expectorants, and advised no counter-irritation. The woman was treated on a simple tonic plan, under which she recovered. About two months back we had a lad, Mitchell, in the top ward, the subject of simple fever. One morning he told us he had "something very bad amiss" with his kidneys. He had a severe pain in the small of his back, but it did not shoot down either thigh; there was no retraction of either testis, or pain in it; he had no sickness; his pulse was not increased; and his urine was not unnatural in quantity or composition. I found that the pain was first felt, and in a moment, when he was getting up, and that it was excessively sharp; on requesting him to keep his legs straight, and to try to bend forwards, I perceived that he could not do so. From all these things I concluded that the pain was simply muscular. He was ordered a mustered poultice to his loins, twelve inches by eight, which was kept on for twenty minutes. The following day he complained very little, and was shortly well. This lad told us he had something the matter with his kidneys, no doubt because he had no idea of pain in the small of the back unconnected with those organs. I remember being consulted about three years ago, by a man named Merrick, a patient of Dr. Mackay's, in this town. He said he was the subject of "kidney disease that was killing him"; and, strangely enough, was offended because his medical adviser had tried to deceive him. I saw no reason whatever to encourage his belief, and repeated, what he had been told before, that his ailments were dyspepsia and lumbago. He was half inclined to be saucy with me because I would not consider him a victim. He submitted to a course of mild tonic treatment, and wore an opium plaster across his loins; but I verily believe he rather grudged, than was grateful for, his recovery.

Never credit what patients say of this organ or the other; let your opinion be the issue of your own deliberate examination—not of their crotchets.

As you advance in practical knowledge, and possess yourselves of the invaluable results of judicious observation, you will see how many are the complications of what appear to be simple diseases, and how organs, remotely situated, implicate each other in their pathological states. To understand these things well, is to make the surest and shortest step towards becoming successful practitioners. To find the occasion of their exhibition and explanation is the grand opportunity of hospital practice. These funda-

mental truths of pathology, it is the business, as it will ever be the pleasure, of myself and my more able colleagues to point out and particularize to you, day by day, in our hospital attendance. Like all demonstrative facts, they are only to be properly brought before you in their individual evidences: they are only to be correctly comprehended by seeing them in their living detail. To give you some general notion of them, as we are yet dealing only in generalities, suppose a patient comes to you complaining of headache. This is a very generic sort of term, and may involve a great variety of specialities—some serious, and others simple. One patient, we will say, is in his teens, or not far out of them, yet he looks older by many years than he ought to do. His face is blanched and parchment-like; cheeks sunken; eyes hollow, lusterless, and watery, and they never look fairly at you; the man is timid, nervous, shuns society, and has no inclination for active pursuits; he is subject to giddiness and forgetfulness, and has almost constantly a dull, heavy pain at the back of his head, perhaps extending down the spine, with a sense of weight and dragging of his legs. Here you have a nervous system enfeebled and shaken from causes you will easily learn, if you pointedly inquire after the personal habits of the sufferer. Another complains of oppressive pain, chiefly over his eyes, scarcely ever leaving him, but distressingly aggravated at different periods of the day. It is probable that these periods are subsequent to meal times, and that then the headache is attended also with drowsiness. The man is dyspeptic. He will tell you that his bowels are confined, and that he is troubled with wind. Look at his tongue, and you will see that it is furred with, most likely, a brownish patch in the centre. Percuss the right hypochondrium, and you may find a greater extent of dulness, or more tenderness, than natural. The condition of the great viscus here is wrong. Liver, stomach, and bowels are the sources of that frontal headache. Another patient has pain in the forehead, but it is acute and lancinating, and not persistent. Its periods of accession and departure are pretty regular. Ask the precise spot of the pain, and you will have indicated the exit of the supra-orbital nerve of either side, probably the left. Here you have a case of *tic douloureux*, which may have no obvious exciting cause, or may result from exposure to cold, from dyspepsia, from pregnancy, from uterine disease, or disorder, &c. Another complains of aching all over his head, considerably increased by heat or cold, as the case may be. On further inquiry you learn that the pain is chiefly superficial, and that to rub the patient's hair, in different directions, sharply, is to agonize him. Here you have rheumatism of the cranial integuments. Look cautiously after this case. You may suddenly have a pain of a different kind, and deeper-seated, ushered in by screaming, and shouting, followed by restlessness and delirium, with a glaring injected eye—the meninges of the brain will be suffering from metastatic rheumatism in its most active form. It was gout, thus transferred, that destroyed the valuable life of Dr. Ingleby, your late Professor of Midwifery. Another has acute pain darting through his temples and ears, especially when he gets warm in bed; at the same time he has what he well describes, as "gnawing pains" in his shinbones; his nose is tender, and the roof of it painful; he has, or has had, sore throat, and there are copper-coloured patches about his body. This headache has its foundation in syphilis: mind your treatment, or the more delicate bones of the head and face may be sacrificed. I show you a characteristic specimen in illustration. See how the nasal and temporal bones have suffered here!

A delicate female complains of heavy throbbing pain over the middle, or at the back, of the head. She has had it several months, more or less, and it is liable to periodical exacerbations. The uterus has likely something to do with this pain. It may be a case of simple amenorrhœa; it may denote the climacteric period of female life; it may de-

pend upon pregnancy; or the uterus may be undergoing some morbid change. This organ, however, may not be at fault: habitual constipation, which females are often in the habit of neglecting, may be the cause of the suffering; or it may be occasioned by hemorrhoids.

Such, and so many, may many more, are the varieties of pains in the head, having different causes, and requiring different forms of treatment.

Take coughs, again, how diverse are the pathological conditions inducing them. You remember an out-patient I have, nearly convalescent from an attack of jaundice. She had a distressing cough, which the physical condition of her lungs, as evidenced on examination, told us was due to the congested, sluggish state of her liver. She took no expectorants, yet her cough entirely subsided under the influence of aperients with alterative doses of calomel, and an ammoniaco-mercurial plaster to her side. On the other hand, the boy Yardley, with scarcely any cough, and no character about it, gave us ample evidence of extensive mischief in his lungs, which the *post-mortem* proved. I pointed out to you the other day an irritable cough in a man of nervous temperament, which is fast getting better under the influence of strychnine. The man Bates, in the front top ward, had a distressing cough on admission, with difficult breathing. I told you, after having auscultated and percussed his chest, that my opinion was his lungs were suffering from engorgement, consequent upon hypertrophy of the right side of his heart. We gave him digitalis, in infusion of gentian, and the subsidence of his cough and difficult breathing has exactly corresponded with the diminished force and frequency of his heart's action.

A cough supervening upon a gouty attack, you know, rarely gets well until the gout begins to disappear. The cough of amenorrhœa will last for months and years, obstinate and painful, and yet subside, as if by enchantment, on the recurrence of the proper uterine function. The presence of worms in the intestinal canal will give rise to cough and expectoration of most serious aspect; ignorant of pathology and physical diagnosis, you might easily mistake a case of this kind for phthisis; yet, on the expulsion of the parasites, the cough and bronchial discharge will often cease immediately. A stomach cough, you know, is a very common trouble; you have lately had several good examples of its subsidence under the exclusive use of tonics and aperients, with restricted diet.

The stomach, gentlemen, is an organ with which you will have frequent dealings in your practical career. It relates itself so intimately, in sympathy, with the functions of all other organs, that there is no limit to the mischief that may follow its own derangement. I have several times illustrated to you, in the cases we have had lately, how intractable, often, is simple fever supervening upon dyspepsia. Accidents in this state are difficult of reparation: the ends of broken bones are apt to form imperfect callus, and incised wounds seldom heal kindly, and by the first intention; inflammatory action, superficial or deep-seated, is prone to be suppurative; moreover, in certain diatheses, dyspepsia provides a ready opportunity for tuberculose. Joints have a strange sympathy with the digestive apparatus. This deranged, often gives rise to aches and pains resembling articular rheumatism; whilst the latter, in reality, never fails to be aggravated by a fit of dyspepsia. If a patient come to you with a sprained knee, look carefully to his stomach. It will be a chance if his injury get well whilst there is fur upon his tongue. Amenorrhœa, again, is often protracted by the exhibition of heavy iron tonics, when lighter ones, of the vegetable class, would relieve the condition of the digestive organs, upon which the uterine irregularity depended. The latter, again, may be the leading pathological feature, and give rise to excessive epigastric pain, or to constant nausea or vomiting, in which the stomach has only a secondary share. You meet with a chlorotic patient sometimes, with legs of uniform thickness



from the ankle to the hip-joint. The heart, or liver, or kidneys, have nothing to do with this: leeches to the groin, or to the vulva, will do far more towards relieving it, than any amount of diuretics and hydragogue purges.

These are cases that test your pathology, and tell you of its value. You will be better able to appreciate its indispensableness when we come to consider such cases more directly in detail.

## DUMAS ON ORGANIC CHEMISTRY. No. IV.

### PHENOMENA OF COMBUSTION IN ORGANIZED BEINGS.

(Continued from page 202.)

We find by experiment that the plant, when protected from the solar light, does not decompose carbonic acid; in fact, the quantity of carbonic acid around it increases instead of diminishing. It is probable that, during the night, the plant, as in the cases already cited, carries on a limited function; that, besides the quantity of carbonic acid which passes mechanically into its interior, and which it rejects unaltered into the air, it may produce a certain increased amount of it by a true combustion.

We may, then, lay down the following as ascertained facts in this interesting branch of science:—All the green parts of plants absorb the chemical rays of light; they absorb heat and electricity; they decompose water and carbonic acid; they fix carbon and hydrogen, at the same time liberating oxygen; in fine, they act as a reducing apparatus. Those parts of plants which are not green do not absorb the chemical rays of light; they give out electricity; they exhale heat, and they burn carbon and hydrogen. In one word, wherever a plant has need of heat, and where it does not receive it from without, it performs the same function as an animal: instead of acting as a reducing apparatus, it becomes an organ of combustion; and we may say, without being accused of any metaphor, that during these periods the plant in reality forms a part of the animal kingdom. We are not, at the present moment, going to consider the materials from which the plant produces carbonic acid and water; we shall return to this point when speaking of the sources of animal heat. We shall here merely remark, that certain parts of plants contain matters which, during their germination and development, disappear from the reservoirs in which they had accumulated: beet-root loses its sugar, potatoes their starch, and oleaginous grains their fatty matters. Finally, we may add that, as the animal requires oxygen for the purpose of its existence, so also does the plant, during the periods of its germination, its flowering, and fecundation; oxygen is quite as indispensable to it, during these periods of its life, as it is to the animal itself.

But, if it be evident that carbonic acid and water are formed in the flower and fruit of the plant, parts in which there should be developed heat, how are we to account for the production of that caloric which ought to take place in the green parts themselves, in the middle of the day, and, consequently, precisely at the hour when the sun exercises its influence over them? M. Dutrochet has performed some very delicate experiments, which show that the green plant possesses, towards the middle of the day, a temperature superior by a third or a quarter of a degree to that of a dead plant placed under similar circumstances. The difficulty of these experiments, as also the minuteness of the varying results, render these operations rather uncertain. M. Dutrochet, however, who seems to have taken every possible precaution, states that the living plant experiences every day a sensible elevation of temperature, when exposed to the open air. He has found, moreover, that if the plant be maintained in obscurity, a similar paroxysm takes place during the first three days; after that, this excess of temperature goes on daily diminishing, until the phenomenon altogether disappears. We may then admit, while fully adopting the views above professed, that, in addition to the general principle, by virtue of which the green parts of plants decompose carbonic acid by seizing

upon solar heat and light, there is effected another action, a true combustion in the liquids of the plant, in the very midst of the vessels through which they run. This it is to which we must attribute the slight elevation of temperature which is observed.

Having thus glanced at the mode in which these vital functions are carried on in the plant, we have now to consider the phenomena of respiration in animals.

The animal, during respiration, absorbs oxygen; produces carbonic acid, water, heat, and electricity; and parts with carbon and hydrogen: these phenomena exist in every series of animals. To demonstrate this, we have but to examine the air in which an animal has been for some time confined—an experiment which will give the most marked results. If, by means of a pair of bellows, we inject common air into a glass filled with lime-water, there will be but little, if any, cloudiness produced in the liquid; but, on the contrary, should we breathe into it, a manifest cloudiness appears in a very short time, and the fluid soon contains a very considerable quantity of carbonate of lime. The same phenomenon will also be observed if we confine a bird for some time under a glass bell filled with air.

Similar properties are manifested by cold-blooded animals. If a frog be kept during some hours in a limited quantity of atmospheric air, we shall find proofs of the formation of carbonic acid. Even the air in which snails have been for some days confined will produce a marked cloudiness in lime-water, when placed in contact with it.

If, instead of experimenting on air-breathing animals, we observe what passes in the fish, we shall find the same phenomena produced: their gills act upon the oxygen dissolved in the water precisely in the same way as the human lung does upon the surrounding air; the principle is alike, the form only is changed. Moreover, the quantity of carbonic acid is very much diminished; since, according to MM. Humboldt and Provençal, the tench, a fresh-water fish, produces but a 50,000th part of what would be formed by man in a similar period. Nothing is more easy than to prove the production of carbonic acid and the disappearance of oxygen during respiration in the fish: to show this, we have merely to analyse the gases obtained by the ebullition of the water in which fish have been for some time kept.

The above experiments will fully demonstrate the principle I have laid down; we may, however, by carrying our investigations further, prove that the phenomena of combustion are manifested from the instant that animal life commences. Thus, the development of the chicken is accompanied by a true combustion of organic matters, which takes place at the expense of the oxygen of the atmosphere. The structure of the egg will show us the means adopted by nature for placing the young being in relation with the air. We shall understand this better by studying the disposition of the egg during incubation. The albumen invariably occupies the lower part; the yolk, becoming specifically lighter, is always carried to the upper part, whatever may be the position of the egg; and further, the *cicatricula*, being itself still lighter than the rest of the yolk, rises towards the uppermost part, so that it is always applied against the walls of the shell, which walls are perfectly permeable to the air. Thus, the fecundated ovum of the bird is at first brought into contact with the air, under conditions which are modified in proportion to the requirements of development in the fœtus. The yolk, at first of the same density as the white, becomes gradually lighter, by appropriating to itself some of the water of the white by endosmosis. The *cicatricula*, around which this water is chiefly collected, becomes itself the lightest point of the yolk. It is in this way that the vessels of the venous membrane, and subsequently those of the umbilical vesicle, attaching themselves to the shell, are brought into relation with the external air. It is moreover proved, beyond a doubt, that, during incubation, there is a true respiration, with elimination of carbonic acid. Thus, the chicken will quickly perish if it be hatched in the midst of gases deprived of oxygen,

With all oviparous animals, where the fœtus is not in direct communication with the mother, or with the external air, the oxygen is brought into relation with it by an almost similar mechanism. On making a vertical section of a viper in a state of gestation, we find that the lung occupies almost the entire length of the body on each side of the vertebral column. The oviduct is situated immediately below, towards the abdominal surface; so that, while the animal is in a state of repose, the ova are placed, in relation with the lungs, under the same peculiarities as we find in the egg of the chicken: that is to say, the air is brought into contact with the germ by reaching it through the lung, at the same time traversing the slender wall of the oviduct. Thus, with the viper, as with the bird, the egg contains a yolk which, becoming lighter, applies itself to the upper wall or part of the shell, which is itself in intimate relation with the lung through the medium of the parietes of the oviduct.

Similar conditions are met with in the serpent. The eggs of the adder, at the moment of their being laid, contain a fœtus in an advanced state of development. And, further, many oviparous serpents may be transformed into viviparous by the effect of captivity alone. A female of this species, in a state of gestation, if placed in a chest, instead of laying its eggs, as it would do in a state of liberty, brings forth its young in a living state, and at a later period: this I have myself proved. We find then in serpents, in general, conditions favourable to the development of the ovum: that is to say, the conditions necessary to its respiration within the body of the mother itself.

With birds it is quite different. If we tie the oviduct of the hen, so as to prevent the laying of the egg, and thus keep it within this cavity for several days, we shall observe no trace of development in the chick. This is entirely owing to the relation between the oviduct and the lung or external air being cut off.

All these facts prove, in the most incontestable manner, that, throughout the whole animal scale, from man to the insect germ or embryo, the processes of life are accomplished by an absorption of oxygen, and by an exhalation of carbonic acid and water. By giving a little closer attention to this subject, we shall readily understand the manner in which oxygen acts upon the blood. Plants absorb carbonic acid by their roots or by their leaves; they decompose it, and exhale the oxygen. Animals absorb oxygen, making use of it to burn their aliments, and exhale carbonic acid. This definition will be best expressed by the following theories, which have been received as explanatory of the process of respiration. The first is due to Laplace and Lavoisier. They believed (or at least they seemed to do so) that the oxygen introduced into the lung there burns immediately a part of the elements of the blood, producing in that organ the heat of which the animal stands in need. Such notions, however, have been plainly proved erroneous by the following experiment of Spallanzani, to whose industry and research physiology is so much indebted. This experiment has been repeated with great care by M. Edwards. A frog is placed in perfectly pure hydrogen, previously taking care to compress the animal under a column of mercury, so as to expel all the air which may exist in its lungs. After it has been kept some hours under the bell, we shall find that it has expired a quantity of carbonic acid, corresponding in volume nearly to its own size: now, it is very evident that this acid pre-existed, and that it has become displaced by the hydrogen, which cannot have produced it. Thus carbonic acid is expired, and oxygen absorbed. It is hardly necessary to add, that the process of combustion must then take place in the current of the circulation. We shall return to the consideration of this phenomenon when we come to study the nature of the blood itself.

The following numbers show the amount of carbon burned by an animal in twenty-four hours. In man, the quantity varies from 150 to 200 grammes,\* and from twenty to thirty grammes of

\* The gramme is, by weight, equal to about sixteen grains, English.



hydrogen. Representing the hydrogen, then, by at least a triple quantity of carbon, we must add to the 200 grammes of carbon an additional ninety grammes; so that man consumes, in the day, a quantity of combustible matter equal to 250 or 300 grammes of carbon. We now come to the results obtained with regard to other animals, making allowance, of course, for possible errors in calculations of this kind. In twenty-four hours, an animal consumes as follows:—

	Carbon.	Hydrogen.
The Horse . . .	2500 gram.	27 gram.
Rabbit . . .	25 "	2.7 "
Guineapig . . .	6 "	0.5 "
Pigeon . . .	7 "	1.0 "
Dog . . .	33 "	5.0 "
Cat . . .	17 "	3.7 "
Large horned-owl	15 "	3.0 "

A simple glance over the foregoing numbers will show, as Dulong previously asserted, that the quantity of hydrogen burned by a carnivorous animal is much greater than that consumed by an herbivorous one; this excess is counterbalanced by the quantity of fatty matter taken up in the food of the latter.

We will now proceed to explain the mode of conducting these experiments; and, as man stands foremost in the scale, we will first consider the conditions by which he should be surrounded, so as to arrive at correct results. If, after inspiring some air into the lungs, we expire it over mercury, an analysis of the air thus collected would certainly give us its composition; but this would not permit us to decide as to the composition of the air during normal respiration. Every effort necessarily modifies the composition of the air escaping from the lungs; we must, if we would have correct data, take the air resulting from a free and independent respiration; we must examine the air expired at different periods of the day, but invariably at those moments when the respiration is neither retarded nor accelerated by exterior causes: by following such precautions we shall be enabled to arrive at correct results. The apparatus which I have used for this purpose consists of a glass globe or flask, with a long neck, having a capacity of about 500 cubic centimètres, and correctly graduated upon one of the sides of the neck into centimètres or half-centimètres; also of a glass tube which is to be fixed into the flask, and of which the diameter is so calculated that the annular space which it leaves in the neck of the vessel shall be equal, or nearly so, to its internal section. When we wish to use this apparatus, we must inspire the air by the nose, and expire it by the mouth. This habit is easily acquired; and, while doing it myself, I can with facility read or write at the same time. After having respired in this manner for half or a quarter of an hour, we may be sure that the flask will be completely filled with the expired air; then, continuing all the while to breathe into the vessel, we are cautiously to remove the tube; the opening of the flask is to be immediately closed, and the vessel to be inverted over mercury; the volume of the gas must now be correctly measured, and the carbonic acid absorbed by caustic potass. The flask being divided into cubic centimètres—a division easily deciphered upon its neck—and its capacity being about 500 centimètres, every degree of absorption corresponds to 1-500 part of the total volume, or thereabout. By operating in this manner, we find that, in a healthy man, the expired air contains from three to five per cent. of carbonic acid; never less than three, nor more than five. But, in a state of disease, the proportion may be reduced to one or one and a half per cent., or even carried as high as seven or eight.

Now, we may calculate that an adult man introduces about a third of a *litre* of air into his lungs at each inspiration; he makes sixteen of these inspirations in the minute; the expired air, as we have said, contains from three to five per cent. of carbonic acid, and it has lost from four to six per cent. of oxygen; so that, under the ordinary conditions of temperature, and of atmospheric pressure, there passes daily into the lungs from seven to eight cubic metres of air. He will have burned, at a mean calculation, and by reducing the hydrogen into carbon, equivalent to 250

or 300 grammes of carbon in the twenty-four hours. Supposing the maximum consumption, this combustion requires a full supply of 300 grammes of oxygen; the total weight of carbonic acid is then 1,100 grammes, or 550 litres: to produce this, a quantity of air amounting to 2,750 litres must have been completely deprived of oxygen.

We will now explain, in a few words, what takes place, if, instead of respiring under the ordinary atmospheric pressure, this condition be more or less modified. If a man be carried to the top of a high mountain, in proportion as the density of the air diminishes, so is the respiration accelerated, and the number of pulsations of the heart increased. In the diving-bell, on the contrary, in which, besides the ordinary pressure, we have to support that of the whole superincumbent column of water, the respiration is retarded. Again, in the apparatus invented by M. Taburié, where we can apply a very strong pressure, the respiration is rendered much slower. It was also remarked, during one of the interruptions into the Thames Tunnel, that a diver, after having filled his lungs in the diving-bell, under a pressure almost double that of the ordinary atmosphere, could remain under the water a much longer time than usual. This result is naturally owing to the density of the inspired air. The quantity of oxygen inspired is, then, nearly constant in the normal state, the number of inspirations being diminished or augmented, to compensate for the excess or defect of density in the air. If a man inspire a very dense air too quickly, his temperature is soon raised; but if he respire a rarefied atmosphere too slowly, the animal heat sinks. When a hot-blooded animal passes into the state of hibernation, its respiration becomes slow and superficial, and much less carbon is burned than in its period of activity. So, on the contrary, when cold-blooded animals become capable of producing heat, as at the period of incubation, we find their respiration accelerated, and their consumption of aliments increased.

To sum up: all that physiology and chemistry have taught us in relation to respiration may then be comprised in one sentence, namely—a slow combustion of the materials of the blood by the oxygen of the surrounding air.

## ORIGINAL CONTRIBUTIONS.

### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 201.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

There must be some limit as to the knowledge of figures; many most acute persons are very ignorant on very simple arithmetical calculations. A question once put to an alleged lunatic was, if £1,200 produced £20, how much was that per cent.? This could not be answered. Subsequently, Counsel put the same question to one of the jury, who was equally puzzled! This case strongly shows the necessity of caution.

The confidential and chief clerk of one of the most eminent banking houses in London, who was a most excellent arithmetician and financier, was once asked the simple question, "If a herring and a half cost three halfpence, what would eleven come to?" This he worked in various ways, and was unable to solve the question. He had imagined there was great difficulty, and set about some abstruse calculations. But the point to which I wish to direct attention is this: supposing this question to have been put to him by Counsel, before a Commission, to try his sanity, what might have been the consequence? it is perfectly frightful even to contemplate it. Here was a man, placed at the head of a large banking house for his talent, with probity, and yet, although daily living by figures, was unable to respond to a question which a boy six years old answered for him. It is very true that, immediately the point was shown him, he not only saw it but understood it, and this of itself proved he was neither imbecile nor insane.

It is not sufficient that a man be found "so far debilitated in his mind as to be incapable of the general management of his affairs, and has been of the same state of mind for six months last past"; for in a case, *ex parte Cranmer*, this verdict was returned, and was quashed by the Lord Chancellor, who said, "The inquiry is, whether his capacity is of that kind that fits him for the government of himself, and the management of his affairs: I must have that returned"; this verdict does not state distinctly that he is incapable, but that he is so far debilitated in his mind that he is not equal to the general management of his affairs. Another inquisition issued, and the jury, under the direction of the Commissioners, found their verdict, that Harry Cranmer is of unsound mind, so that he is not sufficient for the government of himself, his manors, &c., and that he has been in the same state since the 13th of May, 1806.—*P. 454., Ves. Rep., vol. 12.*

It seems to be essential not only that a jury should find incapacity of a party to manage his affairs, but also other circumstances indicating unsoundness of mind.

Inquisitions have been quashed with returns finding persons in the following conditions, namely, "Not sufficient to manage his person and estate"; "Not of sufficient understanding to manage her own affairs"; "Not a lunatic, but incapable"; "Not a lunatic, yet not proper to take care of his affairs during his fits"; "Weak for the last twenty years"; "Worn out with age, and incapable of managing her own affairs"; "Had been a lunatic, but that, at that time, he enjoyed a lucid interval, and that he was not at present capable of the management of his own affairs, and that he had been in the same state from the 9th of February last."—*Shelford, p. 100.*

But to find, "Not a lunatic, but of unsound mind, so as not to be sufficient for the government of herself, her lands, &c.," was considered good.

It is better for a jury to return a very simple and plain verdict, and not state their premises, or draw any conclusion which does not necessarily follow, or the inquisition may be quashed by mere technicality.

An inquisition has been quashed because the verdict had only carried back the lunacy for six years, whereas the party had been idiotic from infancy; and another inquisition was quashed because the jury did not carry back the lunacy as far as the evidence warranted.

In returning a verdict it should always be stated whether the party has or has not had lucid intervals; but, even if such be omitted, the return may be received, and a traverse may then be allowed.—*Ex parte Ferne, 5 Ves. 450.*

In one case, where a person who had been found a lunatic petitioned to supersede the Commission, on the ground that he enjoyed perfect and constant sanity of mind, the Commission was not superseded, but the party was permitted to have the care and management of his estate for several years; and upon his again becoming disordered in his senses, a Committee was appointed of his person and estate.—*Shelford, p. 135. Ex parte Fermor, in re Errington; Jacob. Rep. 404.*

A lunatic, according to Blackstone, "is one who hath no understanding, but by disease, grief, or other accident, hath lost the use of his reason"; it not only includes idiots, but extends to all of unsound mind. And again he says, lunacy is a partial derangement of the intellectual faculties, the senses returning at uncertain intervals.—*4 Bl. Com. 24.*

An imbecile can think and speak a little, has some feeling and affection, he has a limited capacity for actions and thoughts; while perfect idiots resemble brutes, but without their instinct.

Imbecility shows itself by an incapability of forming a judgment upon even the ordinary concerns of life, the memory being very limited. Such persons are easily excited, easily calmed, and are often fond of talking to themselves; they mistake places, persons, and things, and have no clear perception between the present, the past, and the future—what is done, is the effect of habit and form, and from this cause they often appear devotional. From this state they may still more decline, the memory becoming more imperfect, the



temper more irritable, until they are unfit for any of the social relations of life.

Many men have weak minds, are very eccentric, and yet have full capacity for acquiring wealth; and in such cases it is extremely important to ascertain the natural character, and to see whether there has been any great change or deviation from it. Thus in the case of Mr. Davies, a wholesale grocer, aged 27, who was naturally eccentric, nervous, timid, shy, and habitually anxious, and somewhat vigilant, especially the night preceding the sales of teas at the East India House, but was very clever at his trade. His mother appears, even up to this time, to have held a complete sway over him; she prevented him from going out without her leave, from carrying any pocket money, and from seeing any young females. He much disliked his mother, became hypochondriacal, and consulted several medical men, amongst others Dr. Latham, whom he threatened with vengeance, if the doctor considered him insane, saying, "If you fail, dread the revenge of a madman, for I carry loaded pistols." Soon after this, he left home and went to the Furnival's-inn Coffee-house; he there appeared somewhat wild; and awoke the servants in the middle of the night, thinking there were thieves in the house; he behaved very incoherently, and on the following morning, when remonstrated with by the proprietor of the hotel, he humbly begged pardon on his knees. He was then confined in a private madhouse, and applied for his release. A Commission was granted. He was calm and correct in his answers and conversation; and it appeared in evidence that the very persons who were confining him as unfit to take care of his business, were themselves consulting him about the conduct of that business immediately prior to his removal, and that they could not stir without his advice. Mr. Davies was immediately restored to his liberty and property.

Now, on more closely investigating Mr. Davies's case, we shall find that his learning to box, his spouting poetry, his reading medical books, although dyspeptic, his refusing when twenty-seven years of age to live with a mother who prevented him from leaving home without permission, who constantly interfered in his mercantile business, refused him the privilege of carrying any money in his pockets, although he was worth thousands, which had been realized by his own talents and strict habits of business, and who also interdicted him from going to the theatres, or from forming any female acquaintance, lest he might possibly be married, and because he made sacrifices to free himself from the trammels of what he considered such an odious and unnatural parent, these were the reasons adduced as *proofs* of his insanity; the greatest stress being also laid upon his *refusing* to return to his mother, and his *denial* of having been previously insane.

It is very true that Mr. Davies manifested several inconsistencies, but these in no manner interfered with his competency to manage his own affairs, for we find he was most exact, exemplary, and skilful in his business, the proof of which existed in the large income he derived, as well as in the considerable sum of money he had amassed. It is true he had paid handsomely for a villa near town, but many men constantly pay too largely and more than the value for any object, as a house, a horse, or a property, when once they have set their fancy upon it.

In cases of doubt it may somewhat assist the inquiry to ascertain whether a party has always been peculiar, eccentric, or childish, whether any notable change has occurred. There are cases where it is impossible to state whether the party has or has not a disposing capacity; but, except in homicidal or criminal cases, the greater the difficulty in detecting insanity, so is it usually of the less importance if unperceived. Thus we read of an instance where a Lord Chancellor dined with a gentleman who imagined Queen Charlotte was in love with him, and his Lordship found him very agreeable and sensible, except upon the opinion that the Queen was in love with him. A Commission was granted. This alleged lunatic actually so assisted the Commissioners in the management of his estate, that, without such assistance, the difficulties would have

been insurmountable. Now, in such a case as this, the question would not be, whether such a person should not be confined, because it is at once evident that he should not be; but the inquiry is, why should he have been interfered with at all, since he had not injured the Queen, while his capacity for business, and for the regulation of his affairs, was such that his Committee could not manage his estate without his individual assistance.

In some cases, where it may be proper or justifiable to protect the property, still personal restraint or actual confinement may be most unjustifiable; for instance, in the case mentioned by Lord Erskine, where a person imagined he was the Saviour, and where he conducted himself with so much propriety that the judge and jury and every person in court were, for many hours, satisfied of his sanity, was that a fit case for confinement in a madhouse? Subsequently this very gentleman possessed so much self-control that nothing could induce him to acknowledge or revert to his hallucination; and had he not been examined previously in another court, where shorthand notes of the trial were taken, it would have been impossible to have proved him insane!

So also in the case where the gentleman stated he corresponded in cherry juice, why should he have been locked up in a madhouse? He had neither injured the Princess, nor had he threatened her, nor was he likely to do either; nor would he, as Dr. Conolly has stated, be more likely to recover by associating with others holding worse delusions.

A man may hold deluded opinions upon many subjects, and yet it would be unjustifiable to interfere with his liberty of action or wish. When a jury is called to decide in cases of doubt, their duty is to see whether the point of delusion interferes with the interest of the alleged lunatic, or of others, in person or property, because if a party have sufficient capacity to manage his own affairs, however absurd his opinions upon other subjects, no one has a right to restrain him. A man may imagine himself a tub, or an oyster, may hold extraordinary antipathies, and yet not be a fit subject for a Commission. As Dr. Conolly says, "A man may fancy his legs to be butter, and take all due care of them, without injury to himself, his family, his property, or the property and persons of others, and no one can have a right to interfere with him." And yet there are cases of imbecility where no delusions exist, but where, from general ignorance and incompetence, it may be essentially necessary to control the property, and yet not to interfere with or restrain the person.

If madness suddenly cease, without any marked crisis or change, it is most probably a case of intermittent insanity. Great caution is required in giving an opinion that a cure has occurred, as it often happens that a relapse takes place, although not so frequently as is generally believed. Some have even doubted the very possibility of a lucid interval, but there can be no doubt that a return of the usual or habitual soundness of mind does in some cases take place during the intermission of madness; and it will often be observed that the longer the interval the stronger is the reasoning power, and *vice versa*, the symptoms usually becoming more aggravated with each returning paroxysm, unless the patient is convalescing, when the paroxysms often become more and more mild.

While many physicians state that lucid intervals are seldom perfect, there are some who even deny the very existence of lucid intervals; and Dr. Haslam, after twenty-five years' experience, was of this opinion. Dr. Ray has endeavoured to prove pathologically that such a thing is impossible; but, as Dr. Prichard has wisely observed, and as is often noticed in practice, a person enfeebled with epilepsy has long intervals, and yet, when inspected after death, tubercles or ossific deposition have irritated the brain; so that here is irritation set up, at one time producing a fit, and yet an interval of months or years passes without a relapse.

The intervals of composure or placidity, in cases of insanity, vary as to length, and where these are long it is called *recurrent* or *intermittent*, and sometimes *remitting* insanity; but, however named, it is meant that the intervals of freedom

from the delusion are of considerable duration; when, however, these periods are very short, occurring very frequently, the insanity is called *paroxysmal*. The longer the interval the less is the danger of recurrence.

There is a great difference between civil and criminal cases; a will or deed would be invalidated if there was no lucid interval, even although the insanity did not affect that particular subject or topic; but in criminal cases there is always responsibility, unless the insanity is proved to be the very cause of the act.

To certify that a person has a lucid interval, it is necessary to see him several times, under different circumstances, and to question him on various points.

It is of immense importance to ascertain whether the lucid interval is perfect, whether there is a complete restoration of mental power or vigour, as during an intermission, a very weak and impaired judgment is not unfrequently noticed; and, in such a state, it would be really criminal to allow a lunatic to make any testamentary dispositions, as it is more than probable that under such circumstances these would be very different to what he may have previously contemplated, or to what he would feel it his duty to do on a more complete recovery.

I am certainly inclined to consider that acts which in themselves are perfectly reasonable afford some proof that the state of mind was rational when the party advised or dictated them; but how far the mere execution of a rational will or deed is the proof of sanity must be left for the opinion and decision of another profession.

A rational will affords reasonable grounds for supposing a lucid interval may have occurred, and *vice versa*. A will made and executed during a *lucid interval* is valid; the difficulty alone being the proof of a lucid interval; it must not be a mere remission of violent symptoms, but a sufficient return of mental vigour to enable the alleged lunatic to judge of the act he directs and performs.

Sir William Wynne, in deciding as to the validity of a will, in the case of Cartwright v. Cartwright, where the testatrix was declared to have written her will during a lucid interval, the ligatures and straps having been actually removed from her hands for that purpose, said—"The strongest and best proof that can arise as to a lucid interval is that which arises from the act itself, which is the thing to be first examined; and if it can be proved and established, that it is a rational act, rationally done, that is sufficient."

And supposing even a lunatic who has lucid intervals makes a will, and it is not known whether the will was or was not made during a lucid interval, yet, if the will is rational, it is presumed to have been made when the patient was placid and calm, but "unquestionably there must be complete and absolute proof that the party who had so framed it, did it without any assistance." The great point to determine is not whether a man has been insane, but whether he possessed *sufficient capacity* at the time of the execution of a deed as ought to give it effect. If, however, such influence is obtained over a man as to prevent his exercising sound discretion in making a will, he is not considered equal to a proper disposition of his property.—*Mountain v. Bennett*, 1 Cox. 353.

Most cases have lucid intervals; still it is a most wise law that a person found to have been *non compos mentis*, and asserting that he has lucid intervals, should be required to prove it. It is often difficult to prove this even while the patient is living, but becomes much more so when the alleged lunatic is dead.

In *Groom and Evans v. Thomas and Thomas*, the deceased was admitted to have been insane before the execution of two asserted wills, and there was evidence of delusion and other *indicia* of derangement existing shortly before as well as subsequent to the acts. Judgment was given against the wills; and it was held that proofs of calmness, and of his doing formal matters of business under the sanction of his family, were not sufficient to rebut the presumption against the papers.—*Haggard's Eccles. Rep.*, vol. 2, p. 433.

A singular case occurred professionally to one of



my family, who was legally concerned; it was that of a lady who had been found by Commission of unsound mind, but with lucid intervals. Physicians were every now and then sent down to see her, to ascertain her state of mind. On her decease, a will was found dated on a particular Sunday, about four years back; and a physician whom the patient had herself sent for had attested it, who, together with a nurse and one or two others, subsequently to her death, declared that the lady was on *that Sunday* quite herself, rational, and perfectly aware of what she was doing. The peculiarity of the case, however, remains to be told: a physician had been sent down to see her on that Saturday preceding the day on which she had made her will, and another doctor saw her on the Monday following, both of whom had attested that on their respective visits she was of *unsound mind*. Her will, although prejudicial to the interests of some, was rational, and was unopposed; had it been disputed, there can, I think, be but little doubt that it would have been set aside, as the time elapsing between the visits of the two physicians was so short that the lucid interval could scarcely have been considered complete.

That lucid intervals do occur cannot be doubted, and in some instances it is of great consequence to determine whether a patient, even when confined as a lunatic, should not have the power of making a will or of signing deeds. I am aware of the difficulties of the subject, and know that the greatest circumspection would be necessary; still, I believe, if, on an application to the Lord Chancellor, two Commissioners were specially appointed by his Lordship, to visit the petitioner, and having found him, on two separate visits, with an interval of at least two days, of *sound mind*, that a will attested by them, and sealed and registered under the Lord Chancellor's authority, should be considered valid.

Of course, under such circumstances, the Commissioners would avail themselves of every fact connected with the case, would see there was no illusion, no hallucination, and would, by investigating the rationality of the act itself, and in the reasons given by the testator for his various acts, ascertain whether he was or was not at the time of sound mind.

I am aware how artfully a lunatic may conceal his real opinions, and also that a few coherent sentences do not constitute a sound mind, however deliberate and placid a patient may be; but still when I find a man acting rationally, and wishing to do a rational act, in a rational manner, and with a rational wish, I cannot but feel it to be unjust to oppose any barrier to so reasonable a request.

Because a person can answer a question put to him, that is not sufficient proof of sound mind, but the competency of mind must be judged of by the nature of the act to be done, and from a consideration of all the circumstances of the case. In Combe's case, it was agreed by the Judges, "that the sane memory for the making of a will is not at all times when the party can answer to anything with sense, but he ought to have judgment to discern and to be of perfect memory, otherwise the will is void." And again, according to Lord Coke, "it is not sufficient that the testator have a memory, when he makes his will, to answer familiar and usual questions, but he ought to have a disposing memory, so that he is able to make a disposition of his lands with understanding and reason, and that is such a memory as the law calls sane and perfect."—*Shelford*, 274.

The powerful impression of habit will sometimes impose the necessary self-restraint, even where insanity is unquestionable. Thus a judge may be only sane when on the bench, or a clergyman when in the pulpit, the importance of their several stations acting as a check upon their inconsistencies. The same fact, although in a slighter degree, is also observed in artisans, who are often perfectly rational while working at their trade, but soon again lapse when the occupation ceases. These circumstances prove the necessity and advantages of employment, and also the benefit and the moral check which the restraints of society impose even upon lunatics.

As Lord Thurlow has stated, "It certainly is of

equal importance that the evidence in support of the allegation of a lucid interval, after derangement at any period has been established, should be as strong and as demonstrative of such fact as where the object of the proof is to establish derangement." When a person has once been found insane, there are sometimes great difficulties to overcome in proving him sane. It is easy to form general rules, but not so easy to apply them. It is very difficult to prove a lucid interval, but if a lucid interval really exists, and a deed is executed during a lucid interval, it is valid, for "where there is satisfactory evidence of the sanity of a party at the time of a contract, the antecedent state of his mind, and the causes of it, may be laid totally out of view."—*Shelford*, p. 50.

It is a fact that some men can reason very soundly upon any other subject except that upon which they are hallucinated, hence a question arises whether a person should not be permitted to make a will, when his hallucination does not turn upon his property or his family? Even dangerous lunatics, as Dr. Prichard states, may make good wills, being reasonable upon such subjects. In civil suits, however, the law avoids every act done during the period of lunacy, even though such act is not, and cannot, be connected with the influence of the insanity.

When a jury, under a Commission, *ex parte Atkinson*, in *re Parkinson*, returned "that the said Thomas Parkinson, at the time of taking this inquisition, is a lunatic, enjoying lucid intervals, and during such lucid intervals he is competent to the government of himself, and the administration of his own affairs," this inquisition was quashed by Lord Chancellor Eldon, who ordered a search to be made for precedents.

Among them was Mary Halsey, "is not a lunatic, but is not of sufficient understanding to manage herself nor her affairs," quashed by Lord Chancellor Talbot, and another inquisition was returned, "that the said Mary Halsey is not sufficient for the government of herself and her estate, and for near twenty years last past the said M. Halsey has been affected with the same weakness of judgment and understanding"; and upon this inquisition a grant of the Committeeship was made.—*Ex parte Barnsley*, 3 Atk. 168.

Another precedent was that of Frances Waller, who was found "worn out with age, so that she is not capable of the government of herself, her messuages," &c.; upon this return a grant was made.

The Lord Chancellor said he thought nothing could be done but to issue a new Commission. It was then objected that a Commission was unnecessary, the evidence showing that the alleged lunatic was in such a state of mind as to be competent to the management of himself. On considering this petition, his Lordship held it to be a proper case for a Commission. Commission issued.—*Jacob's Rep.*, p. 335. 1828.

Where an inquisition found a person of sound mind, who appeared to be in a state of imbecility, Lord Eldon directed two physicians to visit the party, for the purpose of determining whether the state of her mind was competent to the management of her affairs; and, instead of issuing a second Commission, an order was made to restrain the party from executing any deed or will disposing of funds in Court, except in the manner directed by the order.—*Ridgway v. Darwin*, 8 Ves. 65.

In the more decided forms of insanity there can be no doubt respecting the necessity of interference where there is property; for there are circumstances in individual cases which justify the necessity for collateral guidance. The same degree of knowledge which would allow a labourer to guide the plough, would not be sufficient to enable a wealthy heir to manage large estates; and, although it would not be justifiable to restrain or confine the persons of either of these examples, yet it might be expedient and just to prevent the heir from being robbed, and also to manage his affairs for him with economy; nay, more: supposing the labourer to become the heir, a supposition which is occasionally actually realized, in that case the same rule would apply to him; he might then, if of weak intellect, be subjected to a Commission, which, be it remembered, consists of a jury of his

fellow-men; the very same individuals who might have to decide on his guilt or innocence, or on that of any other person, if charged with crime, and which decision might cause his execution. Now, it is but to be presumed, if these men are sufficiently free from prejudice, and sound enough to judge as to the question which would involve a person's life, they are surely capable to give an opinion as to whether an alleged lunatic is *compos* or *non compos*; for, after all the metaphysical quibbles, with all the medical finesse, notwithstanding all the legal subtleties, it is *common sense* has to decide, and it is common sense which can best decide, as to whether a man has, or has not, a sufficient capacity to manage his own affairs.

For it is at once evident how much contrariety of opinion must necessarily occur as to what is considered "capacity sufficient," and this must depend upon the peculiarities of each individual case. No definitions, no positive rules, no single opinions, can decide it in every case; but it must be, it ought to be, sent before a jury to say whether there is "sufficient capacity." Where reason disappears, and where incapacity becomes evident, must depend upon the particular merits of each case. To ascertain the exact line of demarcation between responsibility and irresponsibility, or between capability and incapability, is impossible, for that which would be a sane act in one individual may indicate decided insanity in another.

(To be continued.)

#### ROYAL BERKSHIRE HOSPITAL.

#### SURGICAL REPORTS AND OBSERVATIONS,

By F. A. BULLEY, Esq., F.R.C.S., Surgeon to the Hospital.

#### GANGRENE OF THE FOOT AND LEG—DEATH—POST-MORTEM INSPECTION.

J. P., a sawyer, aged forty-eight, was admitted into the hospital Nov. 28, 1846, on account of gangrene of the right foot, which had commenced by a small spot in the integument of the instep, and had increased until it occupied the greater part of the skin of the outer side of the foot, involving all the toes. He kept constantly tossing about in his bed, at times delirious, with great anxiety of countenance, difficulty and shortness in his breathing, and a constant audible wheezing in his inspiration, resembling what is observed in a paroxysm of asthma, which was more particularly perceptible on auscultation over the upper part of the chest beneath the clavicles. Pulse frequent, feeble, and intermitting. A slight bruit followed the first beat of the heart, and was more easily distinguished when the intermittent action was most apparent, at other times, when the contractions were more regular, this bruit was not perceived. The pulsation of both the femoral arteries was more feeble than natural, and this vessel on the affected side was somewhat hard and cord-like to the feel.

I received the following account of the progress of his disease from the gentleman who had attended him before he came to the hospital.

The present attack had commenced on the 11th of October, six weeks and six days before admission, after exposure to wet, cold, and fatigue, with symptoms of inflammation of the vessels under Poupert's ligament, and great pain extending down the course of the femoral artery and vein. At first the limb was hotter than natural, but it afterwards became cold, and gradually the foot became insensible, cedematous, of a livid colour, and ultimately gangrenous. The pain in the course of the vessels subsided after the first week, but the general swelling of the limb and the insensibility of the foot continued. He had had for a long time symptoms of heart affection, the least flurry producing shooting pains and palpitation, which there could be no doubt were occasioned by organic disease. He had experienced a similar attack of inflammation in the left leg in January, 1846, which after about five weeks subsided, when his foot remained cold and livid for some time, but ultimately recovered its natural temperature and appearance.

In addition to these particulars, his wife informed me that he had been subject to occasional attacks



of rheumatism, with fever, ever since he was ten years old, from which, however, he each time perfectly recovered, and in the intervals was as strong and well able to work as if nothing had ailed him. He had complained of a very great numbness and coldness in the limbs some time before the first attack of inflammation, as well as of severe pains in his spine, especially after lifting heavy weights or overworking himself at his trade. He had always been a very temperate man, but had been subject to great exposure to damp in the pits in which he worked.

The following course of treatment was adopted. He was ordered to have six ounces of port wine, in divided quantities daily.

Rx. Ammon. carb., gr. xl.; pulv. cinchonæ cord., ʒij; decoct. cinchonæ comp., ʒvj. ft. mist. cap. 4ta partem 4ta quaq. hora.

The thigh and leg, including the mortified part, to be swathed in thick layers of wadding, instead of a linseed-meal poultice, which had hitherto been applied. To have an opiate at night.

29. Has passed a restless night, sometimes talking rationally, at others quite incoherently; breathing more hurried and wheezing; countenance more anxious and distressed. The opiate appeared to have increased the delirium in the night; does not seem to have much pain in the leg, up which the discoloration is gradually extending. The putrid smell, produced by the softening of the disorganized textures by the poultice, is now scarcely perceptible. There is apparently no infiltration of serum in the mortified part.

30. The uneasy symptoms in his chest have increased, as well as the wheezing. More violent delirium, so that he is with difficulty prevented from getting out of bed. Flushed face; thirst; pulse intermittent and irregular as on admission, but more feeble. Pergat.

Nov. 6, nine days from the date of his admission. Has been gradually getting worse since last report, especially in his breathing, which has progressively become more rapid and laborious, with hicough and general prostration. Has passed the nights in rambling incoherent talk, at times calling out in so loud a manner as to alarm the other inmates of the hospital. In one of these paroxysms of delirium he attempted to get out of bed, and in doing so fell back, and in a short time calmly expired. The gangrene had extended about half way up the leg, involving all the textures, and, at the time of his death, had a dry, blue appearance, without ulceration, serous infiltration, or any apparent line of demarcation between the sound and mortified parts.

*Post-mortem Inspection twenty-four hours after Death.*—The body was considerably emaciated. On exposing the cavity of the chest, the right lung at its apex was found to be firmly united by strong and old adhesions to the pleura costalis, and in this portion there was a hard fibrous substance, of a reddish-brown colour, of about the size of a large walnut, which, when examined, appeared to be composed of a solid coagulum of blood, which had been retained in the capillary texture of the organ, and had afterwards become partially organized. The other parts of this lung, as well as the whole of the opposite one, were more or less gorged with blood, the bronchial tubes being also filled with a brownish frothy mucus, which flowed freely on incision. The left lung was quite free from adhesions, or any morbid deposit in its texture. The pericardium was universally adherent to the surface of the heart by a firm union of lymph, into which, in various parts, blood had apparently been recently effused. A stalaetile bony concretion, of about an inch long, lay imbedded in the substance of the pericardium, on the right side, pressing upon and indenting the corresponding surface of the right auricle. The heart was very large, its right side thinner than natural, the left hypertrophied; in the sub-serous tissue of the septum, between the auricles, a rounded plate of bone, somewhat shorter, but broader than that found in the pericardium, was observed projecting somewhat into the right auricular cavity, covered only by a thin expansion of the lining membrane, which, together with that lining the other cavities, presented the appearance of chronic endocardial inflammation. On the left side, two or three

of the largest of the fleshy columns of the mitral valve, together with several of its tendinous chords, had been converted into a very hard and white cartilaginous substance, in which were several small masses of gritty, earthy matter, easily broken down and rubbed between the fingers; this degeneration, however, did not appear to extend to the tendinous curtain of the valve, which of itself appeared to be free from change and capable of closure, but for the altered condition of the fleshy columns and chords in connexion with it. The coronary arteries were healthy; there was no thickening or osseous change in the aortic valves. The aorta, from its origin in the ventricle to its termination, was preternaturally small, but there was no appearance of inflammation, thickening, or any bony change in any part of its course. The same might be said of the external iliac and femoral, which were apparently free from disease, with the exception of the latter, which, on the affected side, was somewhat contracted and cord-like to the feel. There did not appear to be, as far as I could judge from a hasty examination of the veins, any impediment to the return of blood from the mortified part. The abdominal viscera generally were in a healthy state; the head was not examined.

*Remarks.*—The foregoing case may be considered as a well-marked instance of gangrene of an extremity, more or less remotely originating in an organic affection of the heart. It is evident, from the history of the symptoms elicited from the patient's wife, that for many years prior to the occurrence of the gangrene he had been subject to symptoms referrible to such a morbid condition of the organ, this evidence being rendered more conclusive by the opinion of the medical gentleman who had previously attended him. It is questionable, however, whether this disease of the heart was the sole cause of the local mortification, the immediate attack, of which the patient died, having been ushered in by what appeared to be well-marked symptoms of inflammation of the arteries; and that such might have been the case was rendered not improbable by the contracted appearance of the femoral artery after death, although this condition of the vessel is not invariably the result of previous inflammation, as explained by Sir B. Brodie in his recently-published lectures, who observes, that, where apparently it is not so, "it is the result of a contractile process, analogous to that which produces a permanent stricture of the urethra or œsophagus."

The same distinguished observer considers that the following may not be an unreasonable explanation of the phenomena which occur in the gangrene of the extremities, which may in some degree be applicable to this case; in which, however, the arteries were neither ossified nor obliterated, but only contracted:—"The arteries," he remarks, "are ossified, or they are partially obliterated, but still a sufficient quantity of blood for ordinary purposes enters the limb. By-and-by, from some cause or another, the foot becomes inflamed. I observed to you, in a former lecture, that during inflammation, an increased supply of blood seems to be required, and that the arterial trunks leading to the inflamed part become dilated, so as to allow this increased quantity of blood to enter; but, if the arteries are ossified, they lose the power of dilatation, the greater supply of blood required in consequence of the inflammation is withheld, and so the part perishes."

Thus far this case may be said to illustrate the foregoing remarks, and, although it would appear from the history that the inflammation had commenced in the femoral artery, there is reason to believe that, from his having complained for a long time of numbness and coldness in the limb, the contractile process had been going on for a considerable period, and that the pain which he experienced in the course of the vessel at first was probably the result of distention of its inelastic tube, by the increased quantity of blood necessary to support the inflammation which had been caused by exposure to the influence of cold.

The morbid appearances observed in the lungs may be referable to the persisting engorgement, to which they had latterly been subject, through the

imperfect closure of the mitral valve, by which a retrograde flow of blood was occasioned to these organs; and it is probable that the melanotic mass found in the apex of one of them, may have been the result of long-continued interruption of the capillary circulation, and ultimate stagnation in the vessels at this part; a condition which, both as relates to the melanotic formation in this as well as in other parts of the body, has been admirably described by Dr. Carswell, who remarks—

"Under the influence of these causes (interruption to the capillary circulation, &c.) the blood accumulates in the capillaries, and ultimately ceases to circulate. After a certain length of time it coagulates, and the serum is forced out along with the salts which are absorbed. That which remains is an almost black substance of the consistence of firm fibrin, and is probably composed in great part of this animal principle and hematosine. The black colour thus produced appears to receive a satisfactory explanation from the circumstance that it follows the stagnation and coagulation of the blood, and, consequently, the separation and removal of the serous and saline ingredients of this fluid; to the latter of which, as has been clearly demonstrated by Dr. Stevens, its red colour is to be attributed."

The delirium was probably the result of the imperfect aëration of the blood circulating in the brain, through the diseased condition of the lungs.

The ossific deposits observable in the substance of the heart were evidently the production of long-continued disease of the organ, probably of endocarditis of a chronic character, coexisting with the rheumatic disease, to which he had, during the greater part of his life, been subject.

The mortification, in this case, was most likely the combined effect of the cardiac disease and the contracted state of the arteries leading to the part. Assuming that this latter condition was the result of the contractile process described, and not the product of inflammation, and as there are a considerable number of cases of organic diseases of the heart, constantly coming under observation, not necessarily resulting in gangrene of the extremities; and as, moreover, ossification and obliteration of the arteries are observed to exist without any obvious tendency to mortification, as observed by Sir B. Brodie,—who remarks, "I have no doubt that many persons have the arteries thus altered for many years, although mortification never supervenes,"—I am disposed to believe that where both these morbid conditions of the heart, and arteries at a distance from the heart, simultaneously exist, gangrene will be more likely to ensue than when either of these parts of the circulating system is independently affected, as appeared to be the case in the present instance, as well as in others which I have had an opportunity of observing.

The treatment was such as is generally recommended and adopted in similar cases, on the supposition that, whatever might have been the amount of the previous inflammation, there existed, when the gangrene had actually taken place, a state of consecutive debility which could only be altered by artificial stimulation; with this view, bark, musk, camphor, wine, &c., have been administered in large quantities, generally, however, with little more than temporary relief; but as, in this particular case, there was abundant evidence to prove that the heart was organically affected, it was judged that excessive stimulation would be dangerous to the patient, and it was therefore only moderately pursued.

With regard to the local management, it will be observed that nothing more was done than wrapping the whole limb, both sound and mortified, in wadding; and to this I attribute the circumstance of the gangrene being wholly unattended by any putrid smell—a matter of consequence, or, at least, of comfort in such cases. Of course, there are instances where the infiltration of serum into the gangrened textures, resulting from active inflammation, is so considerable that a putrid decomposition cannot by any means be prevented; but in similar cases to this, where nothing of the kind has occurred, but where the disorganization has been the result of a defective supply of blood to the part, it is probable that if heat and moisture were



not indiscriminately applied, as by the use of poultices, the parts would assume the appearance of a dry gangrene unaccompanied by the offensive effluvia arising from the softening occasioned by moistening applications.

### ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARK-WICK, Esq., Surgeon to the Western General Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

(Continued from p. 144.)

#### ON THE DIGESTION OF SACCHARINE MATTERS.—SUGAR ADMINISTERED IN MODERATE QUANTITY.

In the foregoing observations we have alluded only to those cases in which cane sugar had been given in excess; we intend now to examine what occurs when it is administered in moderate quantity, and subsequently to ascertain the modifications it undergoes in the animal economy.

*Urine.*—We have frequently sought for sugar in the urine after the administration of moderately sweet fluids, but have never been able to detect its presence. And, as neither the fecal matters nor the other secretions contain it, it is evident that sugar must be either destroyed or modified in the economy.

*Blood.*—1. A man labouring under an inflammatory disease, drank in the morning a quart of water, containing 100 grammes of cane sugar, and shortly afterwards was bled largely. The serum was separated from the crassamentum, and 100 grammes of it mixed with 200 grammes of water, and boiled. The coagulated liquid was then filtered, strongly acidulated with sulphuric acid, and distilled. A third of the distilled liquid was collected, which had a distinctly acid reaction, due partly to the presence of hydrochloric acid. This was ascertained by means of the nitrate of silver; the precipitate formed became partially reduced by heat. Another portion of the liquid was heated with a few drops of a solution of bichloride of mercury, when a very small portion of this salt was reduced to the state of protochloride. The liquid remaining in the retort, on being saturated with soda, showed the presence of modified sugar, when treated by Frommherz's reagent.

2. A woman in the prime of life, and rather corpulent, came to the Hotel Dieu to be bled, in order to relieve some slight symptoms of plethora. Three hours previous to losing blood she had taken a large cup of coffee, with milk, containing about eighty grammes of cane sugar. The blood, having been mixed with twice its weight of water, was coagulated by heat, the liquid filtered, then acidulated with sulphuric acid, and distilled. A slightly acid liquid passed over in which it was easy to demonstrate the presence of hydrochloric acid; but no formic acid could be detected in it. The residuum of the retort, on being filtered and saturated with potash, gave evidence of containing modified sugar, when mixed with Frommherz's reagent, and heated to 100 degs.

3. The same experiments were repeated on the blood of a young man labouring under cephalalgia, who had taken nothing but pure water for twenty-four hours, and neither sugar nor formic acid could be discovered in it.

4. A woman suffering from inflammation, and on low diet for several days, drank in the morning a quart of fluid containing 200 grammes of cane sugar, and was afterwards bled. The blood, treated as above described, was found to contain modified sugar, but not a trace of formic acid could by any possibility be detected in it.

We will now endeavour to ascertain the various modifications which the sugar undergoes in the animal economy.

1. We injected into the veins of a moderate-size dog ten grammes of cane sugar dissolved in thirty grammes of water. Three hours afterwards his urine was drawn off, and examined in a tube of 300 mill., by means of the polarizing apparatus. There was no sensible deviation; but

after it had been boiled with a few drops of sulphuric acid, and the acid saturated, Frommherz's reagent proved it to contain a small quantity of modified sugar.

2. We injected into the veins of the same dog 0.50 grammes of cane sugar dissolved in forty grammes of water. Three hours after the administration of the injection, seventy-one grammes of urine were withdrawn from the bladder. The soluble phosphates were precipitated from it by a few drops of basic acetate of lead, and Frommherz's reagent still betrayed in it the presence of sugar. Our experiments, therefore, entirely agree with those published by MM. Bernard and Barreswil on this subject, in proving that sugar when injected into the veins can be detected in the urine. This substance must necessarily undergo some modification, the nature of which we shall presently endeavour to ascertain, before entering the blood. We also repeated the two following experiments of M. Bernard.

3. Ten grammes of cane sugar dissolved in forty grammes of water were injected into the veins of a dog, after having digested twelve hours, at the temperature of eighty-eight degs. Three hours afterwards, a catheter was introduced, and the presence of sugar in the urine drawn off detected by means of Frommherz's reagent.

4. We injected into the crural vein of a dog 0.85 of cane sugar, digested for twelve hours with forty grammes of gastric juice. Three hours afterwards thirty-six grammes of urine were drawn off, which contained no trace of sugar; a fact that has been also observed by MM. Bernard and Barreswil.

Let us now explain these facts.

What is the modification which the gastric juice causes cane sugar to undergo in order render it in a fit state to be destroyed in the economy?

We made three solutions of sugar: one in water; another in gastric juice, obtained by introducing cooked meat into the stomach of a dog, through a fistulous opening; and a third, also in gastric juice, but obtained from the ingestion in a similar manner of raw meat. These three solutions contained the same quantity of water, and when examined with the naked eye, in a tube of 300 millim., were found to possess a molecular rotatory power of  $+ 83^\circ$ . We allowed these three vials to digest for twelve hours, at a temperature varying from  $35$  to  $40^\circ$  centigrade. The aqueous solution of sugar still possessed a power of  $+ 83^\circ$ ; the solutions of sugar in gastric juice gave us as follows (cooked meat)  $+ 73^\circ$  (raw meat)  $+ 43^\circ$ .

The gastric juice, as is the case with very weak acids, partially converted cane sugar into liquid sugar, having a rotatory power towards the left.

What occurs when cane sugar, modified by acids, enters the blood?

To ascertain this the following experiments were performed:—

1. A solution of ten grammes of sugar in thirty grammes of water containing 0.001 of hydrochloric acid was allowed to digest for twelve hours at a temperature of from thirty-five to forty degs., and then injected into the veins of a dog. The urine was drawn off three hours afterwards, and was found to contain a considerable proportion of sugar.

2. We injected into the veins of a dog a solution of 0.5 of sugar in forty grammes of water containing 0.001 of hydrochloric acid, after it had digested for twelve hours. Three hours afterwards a catheter was introduced, and the urine removed contained no trace of sugar.

3. Ten grammes of glucose dissolved in forty grammes of water were injected into the blood of a dog. At the expiration of three hours his urine was drawn off and found to contain glucose.

4. The same experiment was repeated with 0.5 instead of ten grammes of glucose, and then no saccharine matter could be detected in the urine.

Nothing is now more easy than to account for the modifications which sugars undergo in the economy. If cane sugar, dissolved in water, is

injected into the blood, it becomes placed in contact with a feebly alkaline liquid which in no way favours its destruction; under oxidizing influences it passes unaltered into the urine. (a)

On the contrary, if it be previously transformed by the action of weak acids into modified sugar, or saccharo-glucose, then under the influence of the alkalies of the blood, the new sugar immediately undergoes the oxidizing action of the air. The glucose, which is unaffected by the acids of the gastric juice, is destroyed with the greatest facility under the double influence of oxygen and the alkalies of the blood; it is transformed, burnt in the circulating fluid, and no further trace of it is found in the urinary secretion. (b)

There are two circumstances to which we think it right to direct attention:—

1. We do not infer that cane sugar introduced into the blood by injection is in no way modified, inasmuch as, in the observations we have recorded, we have never found in the urine the whole of the cane sugar introduced into the veins. The following direct experiment, however, proves that it may be modified when dissolved in the blood:—

A solution, composed of thirty grammes of cane sugar and ninety grammes of water, was mixed with about its weight of the serum of the blood. The mixture, examined with the naked eye through a tube of 200 millimètres, had a rotation  $+ 12^\circ$ . After twenty-four hours' digestion, the rotation had become reduced to  $+ 8^\circ$ ; and the liquid, which at the commencement of the experiment had an alkaline reaction, became strongly acid. We detected in it the presence of lactic acid.

2. The glucose or modified cane sugar disappears in the circulating apparatus, and is not found in the urine, although at a given time a minute portion of it exists in the blood. For instance, we have seen that an immediate injection of ten, and even of five, grammes of glucose, or saccharo-glucose, was sufficient for a portion of these products to be discovered in the urine.

Taking these experiments for our basis, we can now follow cane sugar through the living economy, and point out the modifications it undergoes.

If it is taken in moderate proportion with a sufficient quantity of water, it becomes converted, under the influence of the acids of the gastric juice, into modified sugar. A part may be absorbed directly by the veins of the stomach, transmitted by the *vasa breviora* to the spleen, and from thence carried into the torrent of the circulation. Another part (the largest) enters the intestines, becomes absorbed by the intestinal veins, collected by the ramifications of the vena portæ, and carried to the liver, which may also pour a portion of it through the hepatic vein into the greater circulation, but which sends back into

(a) For instance, to a solution of 100 grammes of bicarbonate of soda in 1,500 grammes of water, we added twenty grammes of sugar dissolved in 100 of water. The mixture, when examined through a tube of 303 millimètres, with the naked eye, had a power of  $+ 16^\circ$  after twenty-four hours' digestion. The average of twelve observations gave  $+ 16^\circ$ ; after eight hours' digestion it was observed to be  $+ 15^\circ$ , and was still the same ( $+ 15^\circ$ ) after a lapse of three months. Consequently the oxygen of the air did not modify cane sugar even under the influence of a slightly alkaline solution.

(b) To the same alkaline solution we added twenty grammes of glucose dissolved in 100 grammes of water; the mixture, on examining it with the naked eye through a tube of 303 millim., was seen to have a rotation of  $+ 14^\circ$  after twelve hours' digestion at the temperature of  $38^\circ$  centigrade; the power had become  $+ 12^\circ$  in six days  $+ 8^\circ$ ; in three months it was nul.\*

\* The punctuation of the text appears to be misplaced; the semicolon following the word centigrade should have been placed after  $+ 14^\circ$ , and in its stead a comma inserted.—TRANS.



the intestinal canal a very considerable quantity mixed with the other principles of the bile; an admirable provision, by which a large amount of sugar is prevented from entering the blood at once, and by this means becomes gradually consumed: for, if the whole was immediately poured into the circulating mass, a great portion would disappear, without profit, by the urine; whilst, by the non-modified sugar being again emptied into the digestive canal, with the bile, the necessary modifications for rendering its destruction easy are continued, and it becomes a second time absorbed with the soluble biliary matters.

A small proportion of cane sugar is also absorbed in its natural state; while a larger quantity is transformed by the acids of the gastric juice into modified sugar. But it is not in these two conditions alone that cane sugar is absorbed. A considerable portion is converted in the digestive apparatus into lactic acid, for, after having given cane sugar to dogs in rather large quantity, we have found this acid in every part of the digestive apparatus. The small amount of cane sugar which is absorbed unaltered, appears also to be converted in the blood into lactic acid.

What becomes of this lactic acid in the blood? It combines with soda by displacing carbonic acid, forming a lactate of soda. It is not met with in the urine. It is, therefore, itself converted into carbonic acid and water, under the influence of the oxygen constantly introduced into the blood through the lungs, and of the alkaline condition of the serum. (c.)

Our experiments show that it is only a small quantity of sugar that is thus changed into lactic acid; the greater portion introduced into the circulating apparatus, being there under the double influence of oxygen and alkalis, is directly destroyed with the production of water and carbonic acid, and by passing through the intermediary state of formic acid. It is true that we have only separated traces of this acid, and that this result has not been constantly obtained; but it is well known that previous to the memorable experiment of MM. Damas and Prevost, on the origin of urea, this principle had not been extracted from the blood, although it is continually formed there.

#### ON THE DIGESTION OF DEXTRINE.

Dextrine is a substance intermediate between fecula and glucose, and is produced in almost every reaction in which fecula is concerned. It is therefore important to clearly ascertain the part it performs in digestion and nutrition.

A moderate-sized dog eat in the morning, after fasting twenty-four hours, some soup composed of—dextrine 100 grammes; broth, from which the fat had been removed, 300; bread, 100; saffron in powder, 1; prussiate of potash, 1. Three hours after this meal he was killed by dividing the medulla oblongata.

The stomach contained seventy-two grammes of a slightly yellow thick paste, in which the remains of the bread were easily recognised. This paste strongly reddened litmus paper, and was turned blue by the addition of a persalt of iron. It was mixed with twice its weight of water, and the liquid, after being clarified by passing through a filter containing animal charcoal, examined in a tube of 500 millimètres, when it was found to possess a rotation of  $+5^{\circ}$ . It was then evaporated to the consistence of syrup; precipitated by alcohol, and the precipitate taken up by water, and boiled with a few drops of sulphuric acid; this acid being saturated, Frommherz's reagent indicates in the liquid the presence of starch sugar.

In the duodenum were found seventeen grammes

of a somewhat yellow viscid liquid having an acid reaction, and mixed with greyish-white mucous flakes. It contained prussiate of potash and dextrine.

The remainder of the small intestines enclosed substances of greater consistence, and a darker colour, which still possessed an acid reaction, due, as we ascertained by a process to be afterwards detailed, to the presence of lactic acid. These substances, containing prussiate of potash and albuminous and mucous matters, were diluted with water. The liquid that resulted was then filtered through animal charcoal, afterwards evaporated, and, lastly, taken up by pure alcohol. The alcohol having been removed, and the residue redissolved in a little water, yeast occasioned no disengagement of carbonic acid. The residue, insoluble in alcohol, was redissolved in water, mixed with a few drops of sulphuric acid, boiled and saturated; the presence of glucose was then detected by Frommherz's reagent.

The large intestines contained thick brown-coloured matters, having a neutral reaction, which were also combined with prussiate of potash and dextrine.

*Chyle*.—A very small proportion of a transparent liquid chyle was extracted from the thoracic duct, which became covered over by a slight fibrinous film. It contained neither the colouring matter of saffron, nor prussiate of potash. It was mixed with twice its weight of water and coagulated by heat. The filtered liquid was then mixed with a few drops of sulphuric acid and boiled for ten minutes, again filtered and saturated. Frommherz's reagent then showed a very slight reduction.

*Blood*.—A mixture of arterial and venous blood was examined. The serum had a slightly yellowish tinge. It was mixed with twice its weight of water, coagulated by heat and filtered, and the liquid mixed with two grammes of sulphuric acid, then carefully introduced into a large glass retort, and a third of it distilled. The product had a very weak acid reaction, but showed not the slightest trace of formic acid. The liquid that remained in the retort was saturated with potash, and then mixed with Frommherz's solution. A partial reduction of the salt of copper was observed by boiling.

*Bile*.—The gall-bladder contained about five grammes of a strongly alkaline greenish-yellow bile, in which prussiate of potash was present. It was diluted with twice its weight of water, saturated with sulphuric acid in moderate excess, and boiled for a quarter of an hour. The acid was then saturated, and Frommherz's reagent added, which, at the boiling point, became partially reduced.

*Urine*.—This fluid was removed from the bladder after death. It was of a yellow colour, and contained the principles common to the urine of the dog, but no trace of either dextrine or glucose.

A dog was placed on the following regimen:—He was left without food for twenty-four hours, and the next day given some soup, in which 100 grammes of dextrine had been dissolved. Three hours afterwards his urine was drawn off. The same regimen and the same operation were repeated for four successive days, and each time the urine divided into two parts: to one a little yeast was added, but it never occasioned any alcoholic fermentation; and to the other, a few drops of sulphuric acid. The urine was boiled for half an hour, then saturated with basic acetate of lead, and again boiled with Frommherz's reagent. Twice there was an evident reduction, but on the two other occasions no effect was produced.

We are now able to appreciate the part performed by dextrine, when this substance constitutes a part of the diet of a dog.

Dextrine is not converted into glucose, but partially into lactic acid; the greater portion is absorbed either by the veins of the stomach, or by the ramifications of the vena portæ, and carried partly into the blood, and partly to the liver.

When it is carried into the torrent of the circu-

lation, it becomes destroyed. Our experiments prove that it does not pass through the intermediary states of glucose or formic acid. It is probable, therefore, that it is transformed into lactic acid, inasmuch as dextrine, when mixed with the serum of the blood, yields lactic acid, and, moreover, this substance resists for a considerable time the combined action of oxygen and alkalis at the temperature of the blood. This was proved as follows:—A solution containing 100 grains of dextrine and 500 of water was mixed in equal portions with a solution of 100 of bicarbonate of soda in 1,500 of water. The mixture, examined in a tube of 300 millimètres, had a power of  $+32^{\circ}$ . After digesting three hours at  $38^{\circ}$ , the power became  $+24^{\circ}$ . After three months' digestion at an almost invariable temperature, the power was  $+22^{\circ}$ . From this solution non-modified dextrine could be extracted.

If a large quantity of dextrine is given to a dog in a limited period, a small portion of it may pass unaltered with the urine.

19, Langham-place,

#### REPORT OF CASES OCCURRING IN PRACTICE.

By JOHN GORDON BAILEY,  
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##### No. I.

PERFORATION OF THE DUODENUM, FOLLOWED BY FATAL PERITONITIS, IN A FEMALE THE DAY AFTER MARRIAGE.

While seeing Mr. Thursfield's patients at the Kidderminster Dispensary, on Wednesday, June 11, 1845, I was requested to visit E. T. immediately, who was said to have been taken suddenly ill; while proceeding to her house, I tried to learn the history of the case from her husband (the person who came for me), and was informed by him that they were married the previous day; enjoyed themselves with their friends till three o'clock the following morning, and then retired to rest. About nine A.M. she was suddenly attacked with pain of a violent character, which not yielding to common remedies, they sought further assistance.

On arriving at the house, I found the subject of this melancholy case in bed, partially dressed; her countenance betokened great anxiety, her pulse was small and frequent, the extremities were cold, and occasionally she was troubled with eructations of wind and retchings. On questioning her, she referred the pain to the situation of the duodenum; indeed it was of such an excruciating character that more than once in my presence she doubled her body, and continued writhing some minutes; her bowels were only partially opened the previous day.

I ordered hot bricks to be applied to her feet, and a bag of warm salt to the seat of pain, and exhibited the following draught:—

R. Tinct. opii, m. xl.; spt. amoniacæ eo., 3 ss.; mist. camph., 3jss. ft. haust. st.

I remained with her some time, and, when she began to feel easier, gave her a pill composed of calomel gr. iij., opium gr. j., to be followed by a purgative draught.

Mr. Thursfield saw her about twelve. She was still in great pain, and he ordered the calomel and opium to be continued. Leeches over the abdomen, and a purgative enema if the bowels were not soon opened.

I visited her again at six P.M., same day. She was still suffering pain, with great tenderness on pressure over the abdomen; her pulse was smaller than in the morning, and her countenance more anxious; the bowels were still unmoved.

Mr. Thursfield saw her at ten o'clock in the same state.

At eleven I was called up to her. When I arrived I found her sinking; the pulse was small and thready; the countenance sunk, and desponding; her feet cold, and little sensible to pain; she spoke incoherently to the numerous friends that surrounded her, and after some thirty minutes

(c.) Upon this fact may be based a satisfactory theory of the respiration of animals, which, it is admitted, is deduced from the beautiful researches of M. Chevreul, published in a memoir read before the Académie des Sciences, on the 23rd of August, 1824, and entitled, "De l'action simultanée de l'oxygène gazeux et des alkalis sur un grand nombre de substances organiques."



died most calmly, fourteen hours and a half from the time she was seized with pain.

*History of General Health.*—After several inquiries, I could only ascertain that she suffered from pain in her right side for some time; that she underwent much fatigue as a cook up to the day of her marriage, and spoke of her health in a desponding manner. She was twenty-eight years of age, had menstruated regularly, and did so on the present occasion through excitement; her feeling poorly during the night prevented the marriage being consummated.

*Post-mortem sixteen hours after Death.*—The abdomen was enormously distended, and sounded tympanitic on percussion; the face looked distressed and sallow; some frothy sputa issued from the mouth; all the dependent parts were discoloured; the body was not emaciated. On opening the abdomen, a quantity of foetid gas issued, which, with the intense heat of the day, rendered the operation very disagreeable. On exposing the viscera, the omentum was of an uniform green colour, as were also the small intestines to the extent of at least three feet. The duodenum, in its transverse portion, was found to have a circular opening in it, surrounded by a black margin externally; while, internally, the perforation seemed larger, its side sloping off; the mucous membrane was softened for some distance around the ulceration, affording evidence of the existence of previous inflammation; the peritoneal covering of the intestines was so soft as to be torn like wet paper; the quantity of fluid effused could not have been less than four quarts.

*Remarks.*—Though the history of this melancholy case is imperfect, from the precise state of her previous health not being known, still the *post-mortem* appearances were sufficient to show that disease of the mucous membrane of the duodenum had existed for some time, and, as is the case frequently when inflammation runs into ulceration, the latter ends by the part giving way, whereby the contents of the intestine are effused into the cavity of the abdomen, and fatal peritonitis follows. The character of the pain, its suddenness and violence, diagnosed the case as one of perforation, and the prognosis from the commencement was unfavourable.

From the circumstance of her being married the previous day, many rumours were current among the ignorant and ill-disposed as to the cause of her death; however, the cause being satisfactorily ascertained, soon quieted their unfeeling remarks, much to the comfort of her friends, whom it distressed greatly; and none more so than the poor fellow who had so soon to deplore the loss of his bride, to whom he was long and ardently attached.

I mentioned before, that she menstruated the morning of her marriage through excitement, it not being her regular time. Could this excitement have any share in hastening the perforation of the intestine which led to her death?

#### No. II.

##### CASE OF SUDDEN DEATH IN A PHTHISICAL PATIENT.

James Morgan, aged eighteen, a lad of scrofulous constitution, presented himself at the Kidderminster Dispensary towards the end of May, 1845, labouring under cough, emaciation, &c. Examination with the stethoscope discovered tubercles in the right lung, some of which were beginning to soften. I gave my opinion in accordance to his mother, who accompanied him.

On Saturday morning, June 21, he presented himself again, in about the same state as when I had last seen him; and the same day, having made some slight exertion at a loom, fell down dead while in the act of reaching.

An inquest was held, and a *post-mortem* examination instituted. The body was very thin; the thorax badly developed; the right lung was found adherent by bands of lymph, the result of pleuritis, which he laboured under before applying at the dispensary; the upper portion of the right lung was thickly studded with tubercles, some of which were beginning to soften, but no cavity was yet formed. The left lung was comparatively

healthy, a few crude tubercles being scattered through its substance. The liver was, however, full of small, hard tubercles, as was also the spleen. The heart was soft, though healthy in its valves. Death was attributed to exertion, which the boy was unequal to in his enfeebled state.

*Remarks.*—This case affords evidence of what is commonly met with by those engaged in practice, namely, the small amount of disease which kills some, while in others the most extensive structural lesions will continue for years before abridging life. In this instance the amount of disease was trifling; the left lung was able to perform its function well, and act supplementary to its fellow, and there was no evidence of disease having existed in the heart.

M. Louis, in his valuable work on phthisis, after relating several cases, in each of which the disease had advanced much further, remarks at page 396, 2nd edition:—"How, then, can we explain the sudden death? Is it justifiable to compare the viscera with the locomotive muscles, and admit that under certain circumstances they become suddenly incapable of performing their functions from a kind of fatigue." I believe it was the case in this instance, for the boy was very weak, and had not been able to work for some time.

#### No. III.

##### SUDDEN DEATH FROM OBSTRUCTED CIRCULATION.

I was called to see James Taylor, on Friday, Nov. 22, 1845, a man of spare habit, aged 63, who for many years had suffered from diarrhoea, and, as his wife stated, a "hacking cough." On inquiring the history of the case, I was told that a few evenings previously he had exposed himself incautiously to cold in a garden, and had since suffered from sore-throat. Having examined the latter, I found some slight reddening of the tonsils and uvula, without any ulceration. I prescribed a febrifuge mixture, farinaceous diet, and a mustard plaster to the throat for twenty minutes; his breathing was not difficult, and he was able to sit up.

On calling next day, I was much surprised to hear that he had died suddenly during the night, while in the act of turning in bed to speak to his wife. An inquest was held, and a *post-mortem* examination instituted.

*Autopsy thirty-six hours after Death.*—There were no external marks on the body; the face was tranquil; the lips were not discoloured; the extremities were thin, but not anasarcaous. On opening the thorax, the right lung was bound down by old pleuritic adhesions—its whole substance was of a dark-red colour, soft, easily broken up, and engorged with a red spumous fluid, as in the first stage of pneumonia; the air cells on the anterior of the lung were dilated; the left lung was not adherent, and looked healthy, containing but a small quantity of mucus in the bronchial tubes. The heart was large, free from adhesions, and the pericardium contained no more fluid than its natural exhalation; at its base a thick layer of fat was present; on examining its cavities, the left ventricle was found greatly hypertrophied; there was no dilatation of the right side, and both pulmonary and aortic valves were healthy, as were also the tricuspid and mitral. On slitting open some large bronchial tubes leading to the trachea, the mucous membrane was found of its natural colour—no patches of redness were found, though the examination was continued up to the larynx. On opening the abdomen there was no escape of fluid, but the spleen soon attracted notice from its immense size, occupying the whole of the left hypochondriac region; on taking it out, it was found of a dark-red colour, very firm, and was 4lb. 8½oz. in weight. The liver was also enormously enlarged, but there was a perfect absence of either ascites or anasarca.

*OBITUARY.*—Dec. 4, suddenly, at Shepton Mallet, highly respected and deeply lamented, George F. Burroughs, Esq., late Assistant-Surgeon, of the 1st Dragoon Guards. Dec. 8, at 46, Upper Bagot-street, Dublin, W. Allman, Esq., M.D., late Professor of Botany to the University of Dublin, aged 71.

## HOSPITAL REPORTS.

### UNIVERSITY COLLEGE HOSPITAL.

#### CASE OF SALIVATION AND DISEASED JAW FROM THE FUMES OF PHOSPHORUS.

By W. C. WRIGHT, Esq., M.R.C.S.F.

Late House-Surgeon to the Hospital.

William J. Davinson, aged thirty, admitted June 25th, 1846; a man of middle stature, slight conformation, fair complexion, and nervous temperament. Has been employed in a lucifer-match manufactory for the last twelve years, during six or seven of which congraves have also been made. (The ingredients for lucifers contain no phosphorus, those for congraves a large proportion.) His employment at this establishment consisted in dipping the matches into the composition, which was first liquefied in a water-bath, and then spread upon a warm iron plate; the heat of this caused a portion to be vaporized, with a very disagreeable garlic-like odour, and, as the workshop is but imperfectly ventilated, it always contains more or less of this vapour. Has been accustomed to work in such an atmosphere twelve hours daily. States that a brother, who was employed in the same manufactory, died about six months back, his teeth having fallen out, and nearly the whole of the upper and lower jaw bones decayed.

The first ill health attributable to his employment occurred about eight months ago, when he lost his appetite, felt nervous and light-headed, and his hands began to shake, so much so that upon the least excitement he could scarcely manage to retain a substance within his grasp. When not at work, or after exercise in the open air, always felt much better. Continued in this state, following his employment, until about three weeks back, when violent pains commenced in the teeth and jaws, extending to the head and ears, and his general health became seriously affected; the pain caused sleepless nights; the mouth was very sore, and the teeth so tender that mastication of any solid food was impossible. Consulted a surgeon, who prescribed a mixture and lotion, but, not deriving any benefit from them, presented himself at the hospital, by the advice of a fellow-workman who had been previously treated there for a similar complaint.

*State on Admission.*—Has a dejected, sallow, miserable appearance, the face much swollen; breath having a very offensive phosphorus-like odour; saliva increased in quantity, thick and viscid; teeth loose and much decayed, gums separated from them, spongy, and, in the situation of the last molars, slightly ulcerated. On the right ramus of the lower jawbone is an oblong, hard tumour, about two inches in length, seemingly an enlargement of the osseous substance; on the other side is a smaller one, presenting the same characters; they are occasionally, particularly during the night, attacked with fits of sharp, lancinating pain, shooting into the teeth and face. His whole appearance denotes much depression; complains of feeling very weak, nervous, and low-spirited; appetite bad; tongue foul, and having a sodden appearance; pulse 80, weak, and increased in rapidity from trivial causes; bowels confined; great thirst; sweats during the night; has never to his knowledge taken mercury; is certain his mouth was never made sore by any medicine.

*Treatment.*—Statim habeat mist. domest., ʒjss.

R. Acid. sulph. dil., m. x.; decoct. cinchon. flav., ʒjss. m. ft. haust. bis die sumend. Full diet.

R. Tinct. myrrhæ, ʒss.; acid. hydrochlor. dil., ʒj.; infus. rosæ, c. ʒjss. m. ft. gargarisma sæpe utend.

June 29. Sleeps but indifferently; pulse 88; bowels open; teeth not so loose, was able yesterday to masticate his food tolerably well; breath still very offensive; swelling of face and jaws much the same. Cont. medicament.

30. Improving. Omit former gargle, and have tinct. myrrhæ, tinct. benzoin. c., aa. ʒss.; decoct. quercus, ʒv. ft. garg. ut antea utend. Cont. haust. bis die.

July 3. General health better; breath somewhat less fetid. To suck a lemon during the day. Cont. med.



7. As he sleeps badly at night, to have pulv. Doveri, gr. xij. h.s.o. m. nocte.

10. Since taking the powder, sleeps much better, being free from paroxysms of pain; in all other respects progressing favourably. Cont. med.

14. Up to this date he has gradually improved, more especially in his general health; the appetite is good, and sleep undisturbed. The teeth have become fast, the gums firmer, and he masticates solid food without difficulty. The thick, viscid, offensive saliva is replaced by a more healthy secretion; the hard swellings under the jaw have not undergone any perceptible diminution, but are free from the shooting pains with which they were formerly affected.

15. Made an out-patient.

**Remarks.**—As the improvement of the sanitary condition of the working classes has of late occupied so much of public attention, it is somewhat surprising that the profession have not yet brought under the notice of the Legislature the destructive effects produced to the health of workpeople engaged in this branch of manufacture, by which, for the want of proper precautionary measures, a frightful and disgusting disease is engendered, rendering patients afflicted with it loathsome to their fellow-creatures, and in a large proportion of cases leading to a fatal result. Our hospitals now afford but too many melancholy examples.

Some months since, the Austrian Government deemed the subject of so much importance that it formed a Commission to inquire and report upon it—an extract from which report appeared in the *Lancet* of August last. The cases there described, and those which I have witnessed here, are of such a serious description that I have been in constant expectation of seeing it more generally brought under public notice, with the view to induce those needful precautions by the poorer classes engaged in such hazardous occupations; and that the proprietors of factories should be required to see that such precautions are strictly observed. The following were the suggestions of the Austrian Commission, which I think it right again to refer to:—

“1. That the matches must not be permitted to be dried in the workroom, but if possible in one above it.

“2. That every second hour the operatives be obliged to wash their mouths well with acidulated water.”

This is, I think, improved by the suggestion in the *Lancet*, that lime be exposed in the chambers, and that lime-water be used as a gargle, in preference to acidulated water—a nearly inert phosphate of lime being formed.

“3. That they be sent out twice a day to take their meals and get some fresh air.”

As a further protection, I would strongly recommend to those employed in dipping the matches into the composition (who of course suffer most severely), that they should work behind a glazed screen, communicating with a flue to carry off the noxious vapours.

## PROGRESS OF MEDICAL SCIENCE.

### France.

#### ACADEMY OF SCIENCES.

*Meeting of Dec. 7; M. MATHIEU in the Chair.*  
ON THE UNITY AND ESSENTIALITY OF DISEASE,  
BY J. P. TESSIER, M.D.

Dr. Tessier forwarded on this subject a paper (first part), the leading points of which we have extracted. The ideas which the author's opinions naturally suggest we will refrain from expressing until he has completed his views in another communication. The following is Dr. Tessier's line of argument:—

“Since the days of Hippocrates, the basis of medicine has been sought for in physiological theories, such as the *vis medicatrix nature*, the *strictum et laxum*, the four elements, the archeus, animism, the vital principle, irritation, chemical humorism, solidism, organicism, &c. The simple enumeration of these hypothetical doctrines suf-

ficiently demonstrates that in medicine the history of the systems of science is simply that of physiological suppositions and of their applications. What has this method led to?

“Chemistry reposes upon the immutability of elementary substances, natural history upon that of each species, geometry upon that of figures: in a word, each science is founded upon the immutability of its object: therefore medicine, in order to deserve the appellation of a regular science, must present an immutable basis—a fixed and definitive principle; that principle should be the immutability of disease.

“If disease was not, by its very nature, unchangeable, observation would become worthless, each case constituting an individuality not to be compared with any other. From Hippocrates down to ourselves, most maladies have been in turn described by physicians differing in system, country, and age; and yet these descriptions agree perfectly with each other: thus the fevers described by Hippocrates are the same which have been met with in the Morea and in Algeria; they are the intermittent and remittent fevers of hot climates, so perfectly described by Corti, who observed them in Rome. It is true that, occasionally, a disease hitherto mistaken is suddenly represented in its true light, and acquires a name; it is true also that new maladies are discovered; but, once known, these new morbid entities change no more. Eruptive fevers are, nowadays, what they were in the days of the Arab school; the same may be said for syphilis; and surely, since it has been observed in man, has always presented the same fundamental characters. In favour of the unity of disease in the human species, an argument may also be deduced from the community of diseases in man—which in animals are unobserved—such as typhoid and intermittent fevers, measles, scarlatina, and variola.”

**CYSTIS FROM THE APPLICATION OF BLISTERS.**  
—M. Morel brought forward nine cases of inflammation of the mucous membrane of the bladder, resulting from the application of blisters on various parts of the skin, notwithstanding the incorporation of camphor into the vesicating plaster.

#### ACADEMY OF MEDICINE.

*Meeting of Dec. 8; M. ROCHE in the Chair.*  
INTERMITTENT FEVER.

M. Piorry read a report on a communication of Dr. Audouard on this subject. The author is of opinion that the splenic enlargement is the cause, and not the result, of the febrile paroxysms. The learned reporter stated that the periodicity of the return of fever was, in his opinion, the result of a general law of the nervous system, the greater number of vital phenomena submitted to nervous influence being all, more or less, periodic and regular in their return: thus respiration, the motions of the heart, hunger, sleep, menstruation, are all periodic and regular in their reappearance. It is not, therefore, surprising that the same regularity should be observed in disease, and particularly in neuroses: thus hysteria, epilepsy, rabies, mania, neuralgia very frequently, are subject to periodicity. The same thing is observed in intermittent fever, the diseased spleen causing nervous disturbance, which is repeated at stated intervals. Periodicity can no more be clearly defined than nervous action, on which it is dependent, nor can it be easier explained. The conclusions of the report were favourable to the author.

The report was adopted, after a short debate, in which M. Piorry mentioned the following interesting experiment:—

In several dogs the spleen had been uncovered, and several substances were injected into the veins, without any change being observed in the size of the spleen. An alcoholic solution of quinine was in its turn injected, and immediately after an interval, which could hardly have lasted one second, the spleen contracted and lost one-fifth of its size in one animal, one-sixth in the others.—The meeting adjourned at four o'clock.

**CESARIAN OPERATION.**—On the 7th of Dec., a woman, arrived at the last stage of pregnancy, fell suddenly in one of the wards of La Maternité, and expired. M. Campbell, interne of the hospital, having vainly endeavoured to restore life, and finding, on repeated auscultation of the abdomen, that the contractions of the foetal heart were rapidly losing their strength and their frequency, performed, ten minutes after death, the Cesarian operation. The child was born alive, and is doing well.

[We will at an early opportunity communicate the full details of this interesting case.]

#### FACULTY OF MEDICINE.

GENERAL PATHOLOGY—LECTURE BY PROFESSOR ANDRAL.

##### PART I. HEMATOLOGY.

The blood may be altered in its chemical constitution, in its physical appearance, or in its microscopic elements. With regard to the chemical alterations, they may consist in the increase or diminution of quantity of those elements which the circulating fluid contains in its healthy state, or in the presence of elements foreign to its physiological composition; hence the division of the chemical changes observed into two great classes—1. Changes of proportion of the natural component principles; and 2. Addition of new elements introduced by disease into the blood. Blood is constituted of water in variable proportions, containing, either dissolved or in a state of suspension, organic and inorganic substances. The former are very numerous, and we may, at starting, distinguish three which have been more particularly studied—globulin, fibrin, and albumen. The first is formed of corpuscles floating in the fluid; the second is that substance which spontaneous coagulation separates from the blood; and the third is obtained also in a solid state by the application of heat or of various chemical reagents. These are not the only organic substances which may be detected in its composition: hematin, the colouring matter which remains attached to the corpuscles, fatty matter, and various badly-defined organic principles, may also be found, and amongst them, perhaps, the rude elements of some secretions. The inorganic or mineral components of the blood are—numerous salts; iron associated to the globulin and to the colouring matter; phosphorus and sulphur in combination with the fibrin, in fixed proportions; and also some gaseous products, towards which, on another occasion, we have already directed your attention. Such is, in the present state of science, the composition of the blood.

When, under the influence of morbid causes, that fluid is changed in its composition, we do not find all these substances simultaneously modified, but one or the other increases or diminishes in quantity, and often two elements are altered in inverse ratio to each other. When desirous of studying hematology, we must therefore study the isolated alterations of each component principle, in order to obtain a correct idea of the influence of maladies on the production of changes in the general composition of the circulating fluid.

**Fibrin.**—The researches of Prévost and Dumas had shown that the proportion of fibrin in the healthy blood might be averaged at three parts in one thousand. We had ourselves considered this evaluation as correct; but the more recent chemical computations of MM. Beequerel and Rodier have clearly demonstrated that human blood does not contain fibrin in quite so large quantities: 2.2, 2.3, and 2.4 appear to be numbers more approaching to mathematical truth. The extreme limits to which the fibrin may attain, without departing from the proportions compatible with health, are 4 parts in a thousand at the maximum, and 1.5 at the minimum. Age, sex, and even constitution, occasion no change in these numbers; but above 4, and below 1.5, a pathological condition of the system may always be asserted to exist.

In disease the fibrin of the blood may increase, diminish, or remain at its average standard; in-



deed the latter occurrence is observed unexpectedly in many cases; thus, in chlorosis, the impoverishment of the blood bears entirely upon the globules, and not on the fibrin; on the contrary, in anemia resulting from abundant hemorrhage, both fibrin and globuli in may be equally affected. In one very extensive class of disorders, phlegmasiæ, the quantity of fibrin contained in the blood is constantly increased; this general rule may be said not to suffer any exceptions, the only conditions necessary being a certain degree of intensity of the local phlogosis, and the presence of febrile excitement. Thus, in the same manner that exudation of fibrin is characteristic of inflammation in the solids, increase of the fibrin of the blood is the expression of the same morbid phenomenon; and it is equally impossible to admit the existence of pneumonia without the anatomical characteristics of engorgement, congestion, and hepatization, as to conceive inflammation of the lung unaccompanied by increase of the fibrin in circulation in the blood-vessels.

What, then, should we understand by the word inflammation? We are obliged to circumscribe its meaning to that condition of arrest of the circulation which is followed by the formation of pus, or the exudation of fibrinous deposits, or, at least, by a tendency to these occurrences. This phlogistic increase of the fibrin is perfectly independent of any circumstances of age, sex, constitution, &c., and rests solely upon the concomitant presence of local inflammation and general febrile excitement. So long as the disorder is on the increase, the proportion of fibrin continues to rise in spite of repeated venesection, and during convalescence decreases with equal obstinacy, in spite of the return of appetite and of exhibition of food. There are, however, limits to that increase: in the human subject we have never found it to exceed 10·5 in a thousand; it may rise higher in animals—for instance, in a cow affected with pneumonia we detected in the blood as much as 13· per thousand of fibrin. When, therefore, the chemist finds the fibrin rise to four, inflammation may be suspected; at five, no doubt whatever can be entertained of its existence.

Pneumonia and acute rheumatism are the two disorders by which change is most strongly marked. In *phlegmonous inflammation of the cellular tissue*, we analysed the blood five times, and the quantity of fibrin oscillated between four and seven. In *pneumonia* we analysed the blood eighty-four times, and found—

7 times, the fibrin amounted to 4 to 5 in 1,000	
11 .....	5 — 6
19 .....	6 — 7
15 .....	7 — 8
17 .....	8 — 9
9 .....	9 — 10
6 .....	10 — 10·5

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Inflammation of mucous membranes yielded analogous results. In bronchitis, accompanied with fever, we found the fibrin amount to 6, 7, and 9; in enteritis to 7 and 8. Dysentery is very rare in Paris, but Drs. Leonard and Follet observed the disease in Africa, and found in six cases an average of 4·48. In typhoid fever, although enteritis is evident, no increase of the fibrin has ever been noted—a plain demonstration that intestinal inflammation is not the principal element of the disease. In angina and pharyngitis, the fibrin rises to between 5 and 7; in cystitis and vaginitis experiments give the same results. Mercury is supposed to exercise a liquefying power on the blood; it was therefore not uninteresting to ascertain what is the condition of that fluid in hydrargyrie ptialism: we found the fibrin always increased in quantity. Four cases were submitted to observation: 4·5, 5, 6·4, and 6·6 were the numbers found to represent the quantity of fibrin contained in one thousand parts of blood. An increase varying from 4·5 to 6 was likewise found in erysipelas, erythema, nodosum, and herpes; in burns, where the local nature of the disease at first is still more evident, we found 6

of fibrin. In measles, scarlatina, and variola, repeated experiments have proved to us that no increase whatever takes place. The augmentation of fibrin is also found to exist in cases of inflammation of serous membranes: we analysed the blood of four patients, who afterwards died of purulent infiltration of the membranes of the brain: we constantly found the fibrin above 5 and below 7. In pleurisy, peritonitis, and pericarditis, the fibrin continues to rise so long as acute inflammatory action is present, but ceases on the establishment of a chronic state—the products of morbid secretion continuing to exist. In forty-three cases of rheumatism we found the fibrin rise—in one case to 4; in six, to 5; in fifteen, to 6; in thirteen, to 7; in three, to 8; in three, to 9; and in two, to 10; but in the chronic form of the malady no augmentation whatever was in any instance detected.

#### THE SPAS OF THE RHINE.

By PROF. TROUSSEAU AND CH. LASEGNE, M.D.  
CHRONIC RHEUMATISM.—Section 2.

(Concluded from page 204.)

In the study of the mode of action of mineral waters in the cure of chronic rheumatism, the question naturally occurs, how far the wells in most repute can be said to be possessed of specific properties; and the question is one well-deserving of a serious examination. Of all the thermal springs of the Rhine, whether their heat be natural or artificially produced, none can be found which does not boast its cures, and which may not claim well-authenticated cases of recovery. How different, however, are they from each other in their nature! If they were to be judged of from the mere results of chemical analysis, it would seem that if one succeeds the other ought to fail in yielding to rheumatic subjects the same advantages. Must we, then, leaving aside their chemical composition, simply take into account their temperature, or their mode of exhibition? A sufficient number of facts militates in favour of this opinion, to warrant us in giving them a fair consideration. Ems, during the last century, enjoyed a well-established reputation for the cure of rheumatic affections. Since thirty years or thereabouts, however, not one rheumatic patient resorts to Ems; and, were it not for the hospital, the efficacy of the waters of Ems against rheumatism would be quite forgotten. This remarkable fact cannot, in our opinion, be explained by the caprices of fashion; the true reason should be sought for in the important modifications introduced since the last century in the treatment.

Formerly, as Dr. Döring has very justly remarked, the baths were employed at Ems as hot as the patient could bear them; their temperature and their duration were gradually increased; some persons could, after a time, remain more than two hours in the water, at 30 deg. R. (99 deg. F.), and immediately after were carried into bed, where a profuse perspiration was solicited. At present, whether from prudence or in consequence of the large number of bathers, the bath lasts from twenty to twenty-five minutes, and the temperature is lowered by various artificial means. The baths are pleasant, better borne by debilitated subjects, but less calculated to benefit cases of rheumatism.

Another establishment, equally frequented, furnishes us with another striking illustration: it is Wildbad, in Würtemberg, and which we have not yet alluded to, but which we cannot omit to speak of, when speaking of chronic rheumatism. Wildbad, chiefly resorted to by the Germans, English, and Belgians, is situated in one of the picturesque valleys of the Black Forest, and commanded by two elevated and woody hills; a torrent, which gives its name to the vale, runs in its centre. The ragged roads of the neighbourhood, the less difficult promenades on the banks of the little river, furnish to convalescent residents the possibility of graduating their exercise, from the easiest walk to the most trying fatigue. The surrounding country is magnificent, and Ems itself

cannot, in this respect, compete with Wildbad. The bathing establishment is laid out on a scale of grandeur which is certainly not justified by the importance of the mineral elements of the spring. They contain about half a grain of carbonate of soda, and an extremely small fraction of chloride of sodium or sulphate of lime (per litre). The water is perfectly insipid to the taste. Its physiological effects do not say much in favour of its activity—neither redness nor itching of the skin are ever produced, nor any of those characteristic eruptions which saline waters so often occasion on bathers. The temperature of the spa varies from 24 deg. to 29 deg. R. (86·97 F.) The bath is the only treatment, and no detail has been neglected for the purpose of rendering its application as efficient as possible. The organization may be said to be perfect; but, in sooth, it is not a mineral water which is used, and yet all the bathers declare that they experience an unusual sensation, which they refer to some hidden virtues, but which are plainly due to the comfortable arrangements of the place, and to a slight increase of temperature. Patients affected with that form of rheumatism which the Germans designate as *R. erythicus*, in general, feel a decided improvement after one or two weeks, and after several seasons are definitively cured by a persevering use of the baths. Thus, although, chemically speaking, Wildbad is profoundly insignificant, still it deserves to be recommended to one particular class of sufferers.

In order to acquire a more complete knowledge of the influence of heat on rheumatism, abstractedly from all other active elements of treatment, it is enough to compare the results of the water cure and of thermal springs. In 1710, Homberg had already tried this would-be new method; and at the same time, more than one century before Priessnitz was thought of, an Englishman—John Floyer—brought forward several instances of cure, and described the *modus operandi*. At that time the patient was plunged during four or five minutes into a cold bath, and was afterwards packed for the purpose of producing perspiration; this medication was repeated again on the second day; and since then Germany has adopted the Graeffenburg plan with a sufficient degree of enthusiasm to prevent us from doubting its fortunate results in some cases. We cannot, therefore, deny the influence of temperature in the cure of rheumatism; but should we conclude that temperature alone is to be taken into consideration? We cannot bring ourselves to think so.

The waters of Wiesbaden contain per pound near 3j. of chloride of sodium, and are not, at equal degrees of heat, equivalent to those of Ems, Toeplitz, and Schlangenbad; the fact is proved by their relative physiological action. Public opinion is not favourable, generally, to the distinctions which we deem useful to establish between the various thermal springs. Patients are sent to the most celebrated spa, without reference to the form, progress, or degree of their rheumatism; and yet three essential conditions have a sufficient influence on the cure, to oblige us to grant them our most attentive consideration—we allude to the temperature, the chemical elements, and the duration of the baths and of the treatment. All three may, in a manner, be compensated by each other. The very hot springs of Ems will have an almost analogous action to the cooled waters of Wiesbaden; the Wiesbaden wells, used in prolonged baths at equal heat, will influence the disease as effectually as the Kreutznach spa. It is therefore necessary, in order to give useful practical advice, to take into account the habits of treatment of each spa, as well as its chemical composition. Guided by these documents, we propose, consequently, the following conclusions:—Wildbad is beneficial, in subacute cases, to hysterically-disposed women, and to the aged, when of an irritable constitution. Ems and Schlangenbad meet the same indications; perhaps the bicarbonate of soda contained in their waters may tend to discuss rheumatic swellings and con-



cretions. Wiesbaden is well adapted for the treatment of torpid rheumatism. The chances of complete cure in one season will at least comprise one-third of the patients; another third will feel great improvement; perhaps ten or twelve only will return without having derived any advantage.

Local articular lesions should be treated by the same rules. When subacute symptoms are still present, a spa of small power and low heat should be chosen; and when all inflammatory signs have disappeared, it is evident that resources can be boldly employed against an infirmity, which it would have been rash to have recourse to against a malady. Plethoric subjects, and those predisposed to cerebral congestion, should carefully abstain from the warm and prolonged baths, and in general from the use of mineral waters. As to delicate constitutions, provided they do not present nervous disorders, they can bear most marvellously the most energetic measures.

**OBITUARY.**—The news of the death of the celebrated Tommasini has only just reached Paris. He died at Parma on the 26th of November, in the 77th year of his age.

D. M'CARTHY, D.M.P.

## TRANSACTIONS OF LEARNED SOCIETIES.

### Ireland.

#### SURGICAL SOCIETY OF IRELAND.

FIRST MEETING OF THE SESSION, 1846-1847.—  
SATURDAY EVENING, NOV. 21.

J. W. CUSACK, Esq., Vice-President of the College, in the Chair.

#### PARTIAL EXCISION OF THE LOWER MAXILLA.

Professor Hargrave read the particulars of a case in which he had removed a portion of the left lower maxilla, on account of a tumour which sprung up in the cavity left after the loss of one of the molar teeth in a girl of fourteen. At the time of removal it was about the size of an orange, flesh-coloured, and elastic as if containing fluid. Microscopic examination detected neither nuclei nor nucleoli, whence it was inferred to be non-malignant.

The tumour, on the removal of the external shell, had something of a pearly appearance, with small, thin, lozenge-shaped osseous plates passing into it. A few minute vessels ramified on its surface.

These appearances were less marked in the interior, a section of the tumour having presented a more homogeneous character.

The sections of the bone were made solely and with great facility with Mr. LeStrange's forceps, the chain-saw having been altogether rejected. Indeed the present operation—the first in which those forceps have been tried on the living subject—sufficiently proves (says Dr. Hargrave) that Mr. LeStrange's very powerful forceps will, on all future occasions, entirely supersede the use of the chain-saw—an instrument which has always been found inadequate.

Professor Jacob related cases, and made some lengthened observations, on the subject of foreign bodies in the eye. In the first case a particle of stone, one-fourth of an inch long and a sixth in diameter, and very sharp, projected into the interior of the eye, lay in the anterior chamber for a period of four years, and yet, interesting to remark, during that lengthened period it had not effected the destruction of the organ.

Dr. Jacob drew attention to this point, observing that if a foreign body of such a description, having lain for such a length of time in the interior of an organ, of all others in the body so profusely supplied with nerves and vessels, has yet failed to destroy it, it cannot be necessary to search so industriously after foreign substances deposited in other and so much less important parts of the body, with the dread of their ultimately coming to the surface, instead of which they very frequently remain at rest, if the part be kept quiet for a little time. He did not bring forward the cases as a

matter possessed of novelty, for similar instances with similar results had been recorded by Mackenzie, Lawrence, Wardrop, and others; but he considered its pathological interest of much importance.

A few days ago he had extracted the foreign body, and had strong hopes of ultimately saving the eye. A good deal of inflammation resulted, followed by an eccentric pupil and opaque lens, but no shrinking of the eyeball or other indication of destructive inflammation.

It may yet be necessary to break up the lens more effectually than would have been done in the operation for extracting the foreign body.

In the second case, a little boy had a copper gun-cap lodged in the crystalline lens, where it lay for two or three years without producing any distress or mischief; and a very curious fact connected with this was, that the copper never lost any of its metallic brilliancy, never became corroded or oxidated in the slightest degree.

Dr. Jacob temporized with this case, and the sequel was very instructive. Absorption of the lens took place, and the bit of copper got entangled in the opaque capsule, and, under the impression that extraction would hardly be practicable, from the patient being young and unmanageable, he still continued to temporize with it, and lost sight of the boy for some time.

On seeing him again, a year after, the foreign body had disappeared, and the anterior and posterior chambers were filled with blood, as if from some recent injury. The pupil was dilated, but the eye was spoiled. The cap being nowhere visible, he thought it probable it had fallen to the bottom of the eye, and considered it better to leave the eye alone; so the case was lost sight of.

Foreign bodies (Professor Jacob remarked) are not often deposited beneath the conjunctiva, on account of the toughness of the parts; but yet bits of straw, pieces of rush, twigs, and such matters, do find their way there, and often lie quietly for a considerable time, not only beneath the conjunctiva, but in the fold of reflection of that membrane to the upper lid.

The younger brother of a young lady, in playing with a toy gun, drove a portion of the cap into her eye, where it lay under the conjunctiva, its situation being indicated by a small blackish tumour beneath the membrane. The foreign body had lain here for nine months, without producing any material mischief. It was felt with the point of a needle, and readily removed with the scissors.

As regards the management of such cases, Professor Jacob considers it perfectly justifiable to temporize with them, if the foreign body has lain quietly for some time, more particularly if extremely small; but a certain amount of irritation will, of course, oblige the surgeon at once to remove it. Lawrence, Tyrrel, and others state (though he, Dr. Jacob, was by no means satisfied of the fact) that these bodies become adherent, that they become imbedded or enveloped in lymph. Arguing from what occurs in other parts of the body, this might be expected, but such was not the result of his experience: for example, in the first-mentioned case, the particle of stone was perfectly clear, and as distinctly visible in the anterior chamber as if placed for examination in a drop of water. It is well to remember, however, that, though by no means imbedded or encrusted, the foreign body may be adherent, as happened in the case just alluded to, in which considerable force, with the aid of a curette, was necessary in disentangling it, waiting between each attempt at extraction for the patient to become composed, and the spasmodic action of the muscles to subside. The corneal incision should also be larger, the difference of mischief to the eye between a large and small incision being as nothing compared with the difficulty of dragging the foreign body through a small orifice.

If seen in the course of the day after the accident, he would advise the immediate removal of the foreign body, which will sometimes drop out on the incision being made; while, in other instances, in spite of the utmost caution, it falls back into a fold of the iris and disappears from view. It must be followed, however, with the

curette, and the extraction effected, notwithstanding the struggles of the patient to get away, and the squeezing together of the lids.

In stonebreakers, quarrymen, and persons employed at the anvil, bench, or lathe, minute particles, either of the steel of the instruments employed or of the stone, are frequently deposited on the conjunctival covering of the cornea or in its structure. The particles are sometimes so small as to be detected only after long searching, or even occasionally requiring the aid of a lens of two inches and a half focus; yet so small a particle may be productive of the greatest mischief. If superficially placed, they may in general be removed with great ease by means of some fine-pointed blunt instrument; but if imbedded in the structure of the cornea they must be lifted out of it. For this purpose the point of the needle should be held within a very short distance of the foreign body before it touches the cornea, waiting quietly until the eye becomes steady; it should then be struck in beneath it, and the particle dug up, if not detached by gentle means. The operator should never give up until he has fairly detached it from its situation.

Amongst other high authorities, Mr. Lawrence recommends such cases to be left to nature, saying that a little spot of ulceration is formed round the foreign body, which thus becomes washed away by the tears, but this ulcer ultimately leaves behind it an opacity.

Of all circumstances, Professor Jacob observes, the state of the constitution in these cases deserves the most important consideration; these accidents to the eye being generally trivial in themselves, but often attended with the worst results from this cause. After the foreign body is got rid of, a destructive inflammatory process is set up, ending in the loss of the eye. A whitish sloughy ulceration takes place in the injured part, purulent matter is deposited in the anterior chamber, and at last the sloughy ulceration extends through the cornea. Strict attention should therefore be paid to the general health, and that deranged condition of the digestive organs, and gastric organs in particular, indicated by a yellow-coated tongue; remembering that medicinal and dietetic remedies alone are admissible, as such cases seldom bear or require depletion.

In the short discussion which followed, no new facts were elicited.

It was observed by Professor Apjohn, that in reference to the preservation of their natural brilliancy, by the little metallic bodies projected into the eye in these cases, the explanation, he thought, would be found in a consideration of the condition of the fluid in which these bodies are immersed. This fluid, unlike water, contains neither air nor oxygen in a gaseous state. It is, in fact, alkaline; and to this the preservation of the characteristic lustre of the metal is attributable. Place a piece of metal in a vessel hermetically sealed, so as entirely to expel the air, and its brilliancy may be preserved for any length of time, and the bit of metal in the eye might be looked on as placed in much the same predicament.

## REVIEWS.

*Elements of Chemistry, including the Applications of the Science to the Arts.* By THOMAS GRAHAM, F.R.S., Professor of Chemistry in University College, London, &c. Second edition, entirely revised and greatly enlarged. Part I., 8vo., pp. 160. London: H. Baillière. 1846. The first edition of Professor Graham's "Elements of Chemistry" had few rivals in excellence and reputation, and no superior. His name, for years identified with judicious teaching, ingenious discovery, and learned authorship, was sufficient to stamp with importance and celebrity any work of which it might be the herald. As was naturally expected, therefore, the "Elements" of the distinguished professor not only took a high place on the instant, but the lapse of time proved how well the position was deserved. In the present edition advantage has been taken of all the most recent discoveries and



improvements in chemical science. These new truths, as well as all the old ones, are set forth with remarkable lucidness and precision; the style throughout, indeed, is so perspicuous that even the most elaborate facts, formulae, and laws, may be comprehended by any ordinary intelligence. The diagrams are admirable, and serve most excellently to illustrate the more difficult parts of the text. The work is beautifully got up, and reflects the greatest credit both upon author and publisher. It will prove invaluable either to the commencing as well as the advanced student, and the manufacturer and artisan will find it all they can desire.

### TO CORRESPONDENTS.

**THE MEDICAL TIMES** is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

**A HANDSOME PORTFOLIO** for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

Mr. R. C. S. (Birmingham) writes—"The remarks you made upon the gross insult offered Mr. Alfred Markwick, consulting surgeon to the West-end General Dispensary, by the Editor of the Lancet, in his number of the 28th of November last, must be highly satisfactory to your numerous readers. The compliment you paid Mr. Markwick is no less deserving than his numerous papers in your valuable journal merit. That he has shown himself to be a person of no little importance, in the estimation of the Editor of the Lancet, cannot be disputed. The rancorous jealousy which has shown itself, confessedly too, from his contributions to your widely circulated journal, convey a degree of value to them which has been equally appreciated by the Editor of the Lancet and your professional readers. The silent contempt with which Mr. Markwick appears to have treated the insult offered him is worthy of notice. I hope your valuable journal will long continue to be favoured by Mr. Markwick's contributions: they will be as valuable to your readers as they must be satisfactory to you.

Dr. Murphy's paper, received as we are going to press, will appear in our next.

Mr. Smith on Erysipelas in our next number.

Filius Aesculapius will also appear in our next.

Several other communications are postponed for the present.

**A Medical Pupil.**—The best manuals of medical jurisprudence are those of Mr. Taylor and Dr. Guy.

We are pleased to observe that Dr. R. Quain has succeeded Dr. Latham, as physician to the St. George's and St. James's Dispensary. Our readers are aware that Dr. Quain was for several years a resident physician to the University College Hospital.

**A Subscriber.**—Not if there be a candidate with double qualifications.

**A. D. D.**—We feel much obliged by the information sent us. It came very opportunely.

**A Student.**—We have noticed the fact, that a deputation from the College of Physicians have had an interview with Sir G. Grey.

**Medicus.**—We have no time nor space at present to undertake the inquiry suggested.

Dr. Milroy's letter has been received.

Mr. Smith's letter is very able, but, on mature consideration, we think it right to decline its publication. Mr. Porter's case, even though formerly a

surgeon, though very peculiar, would have little interest for our readers. A court medical could hardly be brought home to such doors.

**F. B. (Kingston)** should have favoured us with his name. We are also much indisposed to be the medium of avenging the griefs of rival practitioners against one another.

We are obliged to postpone to our next several articles, among the rest, Lecture II. of Sir B. Brodie.

**A Constant Reader (Liverpool)** asks us to reproduce the Lancet's abject apology to Dr. Culverwell, Messrs. Mason and Dawson, &c., as illustrations of its hatred of quackery. We do not happen to have them at hand.

**M. D.**—Mr. Button, of Holborn, has, we believe, a supply of glycerine—although we are assured the demand for it has proved so great since it was recommended, through the Medical Times, by Mr. Startin in certain skin diseases, that much difficulty is experienced in keeping up the supply. The following is the mode of preparation:—Digest equal parts of ground litharge and olive-oil with a little boiling water, stirring and keeping up the water as it evaporates. When of the consistence of a plaister, wash it well with hot water, decant the latter, and filter; pass sulphuretted hydrogen to throw down the lead, and then filter and evaporate to a syrup in a water-bath.

**A Country Practitioner.**—There is no earthly chance of a new Registration Bill passing Parliament. The idea is too monstrous to bear a moment's discussion. As to Wakley's anxiety to have a distinction between a medical man and a quack, we should recommend to his consideration the fact that there are other modes of securing that distinction besides the merely legislative one to which he seems to be confining his attention.

**C.**—The Council of the College of Surgeons do not propose, at present, any act of justice or reparation to their outraged members.

## THE MEDICAL TIMES.

SATURDAY, DECEMBER 19, 1846.

### SIR B. BRODIE ON DISTORTIONS OF THE SPINE.

A LECTURE on this subject has been recently delivered by the "leading surgeon" in England; and, without the least desire to cavil at "so eminent a hand," it will be worth our while just to look through this production, if only to form a notion of what "*la crème de la crème*" of pure surgery considers that amount of science which should be distinguished from the science of surgeons in general by royal charters and high titular appendages. To men only fit for "the ordinary surgical ministrations" there must be matter both for improvement and profound admiration in the public teachings of one who has declared himself, by the Queen's letters patent, something so transcendently superior, especially when these teachings, according to his own declaration, contain "more science than will be found in books or hospital practice"!

It is certain that Sir Benjamin ought not to be measured by the standard of ordinary minds—it would be unjust to his reputation, for clearly he does not stand in the "roll of common men." He is a giant Gulliver in the land of Lilliput; and, to get a due notion of his proportions, he should be measured by a pigmy scale. His adulators alone know properly

how to take the measure of his foot, and apply the callipers to his cranium.

We have no doubt that men can be found that will "applaud to the echo that did applaud again" the fine discernment, profound deductions, and practical sagacity exhibited in this lecture. We are, unfortunately, not possessed of the critical talent necessary to discriminate these high qualities; we have read line by line, and sentence by sentence, but have found nothing but a barren waste of trivial commonplaces, and doubtful if not absolutely injurious opinions. We know that an individual in Sir Benjamin's extensive practice will appeal to his experience, to the general confidence reposed in his judgment, and try to sneer down comment; but we know also that opportunity is void without native judgment, that confidence may be the credulity of hypochondriacal bachelors and hysterical old maids, and that neither the one nor the other has any weight in the scales of scientific criticism.

The learned lecturer states many causes of spinal curvature; but in our opinion they are all exceptions, and we are left just as much in the dark as if the oracle had never "ope'd his mouth." The several causes assigned are—first, an original difference of length in the lower limbs (a cause which *en passant* we may observe is only an effect); second, disease of the hip-joint; third, "infantile paralysis"; fourth, "a difference in the capacity of the two sides of the chest," arising from disease of the heart or diminution in the size of one lung; and he concludes by informing us that a rickety condition of the bones is not a common cause of this affection, as has been generally believed.

Now, any practical man knows that the large majority of cases of lateral spinal curvature have never been preceded by any of the causes detailed; and, moreover, that infantile paralysis is very rare, and that a difference in the capacity of the two sides of the chest, from disease, is very common; and is yet by no means commonly succeeded by any considerable spinal flexure. The *post hoc, propter hoc* argument may be a very easy one, but a very irrational one in a public teacher. If, for example, a difference in the capacity of the two sides of the chest has produced spinal curvature in one case, why not in all under generally corresponding circumstances? Simply because there is some other coefficient cause that has eluded the discrimination of the observer. We are not going to deny the portion of truth, a very commonplace portion, be it observed, which may be discovered in Sir Benjamin's observations; for we are very thankful for every little glimmer of experience that may be useful in etiology; but we are bound to say that while Sir Benjamin has taken pains to tell us what is *not* the cause of spinal curvature, he has not informed us what *is*. We expect large views from an individual in Sir Benjamin's situation, we look for comprehension of mind, approved judgment, and established principle, and we are put off with a detail of trivial observations, most of which may be considered rather as coincidences than efficient causes of the disease.

Sir Benjamin states that the altered shape of rickety bones "depends partly on the action



of the muscles, but still more on the operation of the superincumbent weight. *The greater the weight, the greater is the distortion.*" This is no doubt trite enough, but it is on that account, perhaps, the most correct statement in the lecture. Having traced the progress of distortion in a rickety child, from its first appearance in the lower limbs to the pelvis and spinal column, and stated that in the majority of cases of lateral curvature no such progression could be observed, he concludes, "We are not therefore justified in regarding rickets as the common, or even as a frequent, cause of spinal curvature; nevertheless, it is the cause of it in a few instances."

Then pray, Sir Benjamin, what is the cause of lateral curvature? You surely do not mean to say that the four conditions already specified are the only or the common causes of spinal flexure? It is very necessary to know this, because upon the determination of this question the scientific treatment of the malady depends. Are our patients to be laced in iron, or drugged with it? Or are they to submit to the mutilation of innocent muscles upon the plan of M. Guérin? For our own parts, we apprehend that the simplest form of lateral curvature is the result of undue and unequalized pressure, destroying *the elasticity of the intervertebral cartilages* on one side or the other, as the direction of the pressure may be applied. A girl, for example, carrying a child on one arm, throws the weight of her body to the opposite side to maintain her centre of gravity in a line with the axis of her spine. In this way the spine receives a double flexion, and the intervertebral cartilages being pressed by the superior and inferior vertebræ, approximating more on one side than on the other, gradually lose their elasticity on the side on which they are compressed, while nutrition is augmented on the other. By degrees the vertebræ themselves, under undue pressure, suffer absorption on the same side, and the curvature is *perhaps* permanently established. A constant maintenance of one attitude, by keeping the spine bent in a certain position, will effect the same result with more or less certainty and rapidity, as the ligaments may be weakened by debility of the constitution. Constant bed-laying in one position is, for the same reason, a cause of lateral curvature.

The mode of cure, then, is to remove the pressure, from whatever cause it may arise, and to invigorate the constitution of your patient. The cutting of muscles can only aggravate the evil: if any result be produced. A weight acting in a certain direction tends to produce curvature, the antagonizing muscles are called into increased activity to avert the danger; if these are cut, supposing the force still to be in action, it is self-evident that the curvature would rapidly increase. If you remove the weight, you need not cut the muscles.

Let us, however, turn to Sir Benjamin's practice in the cases of rickety curvature of the spine. He is certainly guiltless of blood, or even of science. It is a delightful specimen of the *laissez faire* system of surgical practice. "I know of no reason," he says, "why the treatment of the rickety affection of the spine

should be different from that of the rickety affection of the legs and thighs." He then descants upon the treatment of the latter to illustrate his treatment of the former. For the remainder of the lecture we hear no more about spinal curvature.

Of the treatment, then, of curvature of the lower limbs the lecturer says—"In the early part of my practice I advised that he should be encouraged to crawl on the floor, rather than to use his feet; and that, instead of running about out of doors, he should be taken into the fresh air in an open carriage. I am now convinced that this advice was wrong; that the general health cannot be maintained without exercise; *that the more the limbs are used the better chance is there of the necessary quantity of phosphate of lime being deposited in the bones; and that as the bones become harder, so will they most certainly regain their proper figure, in spite of the weight which they have to sustain.*" Having previously informed us that he disapproves of the use of mechanical supports, we conclude that Sir Benjamin recommends that the little patient should stand and walk about as much as his strength will allow.

Now, we have never before understood, as an axiom, that the cause of a disease could be also its cure: even homœopathy stops short of such a paradox; but it is clear that legitimate science can condescend to grosser absurdities than quackery itself. Sir Benjamin has already told us that the curved form of rickety bones depends upon the operation of the superincumbent weight, and then he advises that the superincumbent weight should be augmented as much as possible to make them straight again! Really, Sir Benjamin should consult "*Blane's Logic*" before he perpetrates another surgical lecture. He is, certainly, not a man to get on without "mechanical supports." There is so much of the intellectual cripple in the march of his ideas, that we think a few doses of logic would invigorate him. Let the witnesses of his reputation have a care to the stability of his understanding.

Well, but we are told that there is a greater chance of a deposit of phosphate of lime in the bones by the use of the limbs. How curious, then, that this deposit did not take place originally under the operation of the superincumbent weight, and avert the disease altogether! While the limbs are in full exercise the deficiency occurs, and the limbs grow crooked; "use them more," says the lecturer, "and you will remedy the deficiency, and recover the straightness of the limb"! All this *may* be true, and if the baronet be what he says he says he is, and what *some* think him—must be true; but unfortunately we are blind to its merit. Truth is often hid in mystery. Sir Benjamin may be a Sphinx—we regret that we are not Œdipus.

The other statement of the lecturer, that the bones will "*most certainly regain their proper figure in spite of the weight which they have to sustain,*" of course falls to the ground with the general demolition of his argument. The number of bandy-legs in men, otherwise of stout build and robust strength, is an evidence

against the position. The truth is, the angle of the curve appears to diminish on account of the elongation of the bone; but we very much doubt, after a new form has been impressed on the bone, if ever the portion of bone so moulded alters its character. On account of the growth in other directions it may not be so evident, but we are doubtful if the curve itself diminishes. There is much deception in appearances. The elasticity of bony matter would, in obedience to the law, cause the components of bone to recover and retain the form in which they exist, either by original formation or accidental impression. A bone, straight by nature, will, under certain conditions of health, retain its straightness; a bone curved by accident will retain its curve. In young subjects the surrounding deposits during growth, in cases of slight deformity, alter the outline of the bone; but in aggravated curves the straightness cannot be removed. Insisting that Sir Benjamin's practice will tend to aggravate the curve and increase the deformity, we are compelled to warn the pupil against the serious mistakes of the master. When Sir Benjamin has observed the curve to become partially obliterated he may rely upon it that Nurse Nature, and not Surgeon Brodie, was the meritorious practitioner.

The summing up of the lecture is, in so many words—"Gentlemen, in cases of lateral spinal curvature and crooked legs, do nothing; leave the patient to the operation of the causes that produced the disease, and they will cure him. This the result of my experience; and you cannot do wrong if you abide by my counsel. You won't find this opinion in books—mere authors do not reason with sufficient profoundness to get at such truths; and you will not see such treatment in hospital practice, because the public would call it humbug, and you would lose every chance of making your way in private practice. Nevertheless, believe me, there is not much difference between common quackery and fashionable surgery; and this is a secret worth knowing." This is a revelation from the lips of a late President of the London College of Surgeons!—a *pure* surgeon!

"Quid verum atque decens curo et rogo, et omnis in hoc sum."—HORACE.

To refer to a few of the more serious diseases in which modern hydropathy is vaunted as curative beyond all parallel, let us commence with *Gout*. This disease is popularly, and sometimes professionally, regarded as best ministered to by "patience and flannel." There is occasionally much wisdom in this homely form of prescription; and no doubt many have saved their lives by adopting it. At the same time every pathologist will admit, that as people differ in age, in constitution, in the power of resisting disease, in peculiarity of manifesting it, and in the complications to which it is liable, so is it impossible to order any uniformity of treatment for it. The "vulgar herd," however, know nothing of these things; with them, gout is gout, and a remedy is a remedy, no matter what the particular features of the one, or the particular exceptions to the use of the other. Hence, when the cold-water quacks, taking ad-



vantage of the ignorance of the populace, preached aloud the efficacy of cold water in gout, every addle-headed fellow was struck dumb with amazement. It was regarded as a species of information little short, in novelty and usefulness, of that which issued from the lips of the bold philosopher who first informed us mortals that we are in the habit of annually gyrating round the sun.

The idea of cold water in the gout! What a flood of enlightenment burst on all the old men and women and children of the nineteenth century, that heard this seeming paradox for the first time! To see a wide-mouthed fellow at a country show swallow shavings by handfuls, and, after a lot of gulping and grimacing, blow them back again as ribands, that any old maid would "march through Coventry with," and proudly, was nothing to the substitution of an extreme like cold water in an ailment for which hot had always been considered the orthodox remedy. The magnitude of the innovation was looked upon by the mobocracy as quite a triumph over legitimate or old-fashioned physic; whilst the mop-and-scrubbing-brush men begged to assure the learned community at large, that the remedy came fresh from the hands of Priessnitz, and was now known to mankind for the first time! The gaping throng were aghast, and waited breathlessly to know how the novel treatment would tell. Some cases submitted to it proved not unsuccessful; and forthwith an ideal medico-champion's belt was bound round the brows of Priessnitz. He called modern medicine fallacious, and got the rabble-laugh on his side, as heartily as Paracelsus had it when he dubbed Hippocrates a fool!

It is our special business, just now, to prove that cold water, as a remedy for gout, is not *new*; in our concluding article we will show that its vaunted virtues are not *true*.

Something more than two thousand years ago, Hippocrates wrote the following aphorism in favour of the application of cold water in gout, as well as in other troubles:—

Δὲ τὰ οἰδήματα καὶ ἀλγήματα ἐν ἄρθροισιν ἄτερ ἔλκεος, καὶ ποδαγρικὰ καὶ σπάσματα, τοὺς πολλὸν ψυχρὸν καταχεύμενοντε ῥῆξι καὶ ἰσχυρίναι. τὰ πλεῖστα τούτων, καὶ λίει ὀδύνην.—APHOR. XXV.

Celsus has the following, amongst other, very pertinent suggestions concerning the treatment of gout:—

"Aqua vero frigida infusa, præterquam capiti, etiam stomacho prodest: item articulis doloribusque, qui sunt sine ulceribus; item rubicundis nimis hominibus, si dolore vacant." (Lib. 1, sec. 9.)

"Si vero tumor calorque est, utiliora sunt refrigerantia, recteque in aqua quam frigidissima articuli continentur; sed neque quotidie, neque diu, ne nervi lædantur. Imponendum vero est cataplasma, quod refrigeret," &c. (Lib. 4, s. 24.)

Amongst non-medicals, in days long by, cold water was a common remedy for gout. The Cydnus of Tarsus, in Cilicia, as every scholar knows, and, as Quintius Curtius particularly said ("Itaque incorruptus idemque frigidissimus"), was a very pure and a very cold river.

It was a favourite bathing-place for the gouty Romans. Vitruvius says (lib. 8, cap. 3), "At Tarsus, a city in Cilicia, there is a river whose name is Cydnus, and in which, if gouty persons steep their feet, they receive relief from it."

According to Lampridius, the Emperor Severus, who died near our own York, sixteen hundred years ago, employed cold water as a cure for the gout. Since that period gout has been extensively treated with cold water by our profession. In 1641 this form of practice was both adopted and advocated by Zacutus Lusitanus ("De Medicorum Princip. Historiæ," lib. 3, Ams. 1641,); in 1788, by Kolbaass ("Baldinger, Neur," Mag., band 5, p. 521); and in 1789, by Keck ("Abhandlungen und Beobachtungen," Berl.). Pechlin, in 1661, discoursed most enthusiastically on the services of snow and cold water, as local treatment in gout ("Observ. Physico-Med.," Hamb., 4to.); and Bartholin considered snow the chief of remedies in this affection ("De Usu Nivis Medico," 1661). Later than this, a noted bombast, Hermanus Van Der Heylen, wrote a book, entitled "Aquæ Frigidæ inter inauditas et incredibiles alias effectus podagra dolores, vel sistitis, vel mirabiliter demulcentis, et ischiadicis, dolores penitus extirpantis," &c. This work, which was translated into English, is filled with the most extravagant laudations of cold water in gout—laudations and lies that, in their utter barefacedness, are not even surpassed by the quacks of the present day.

Smith's "Curiosities of Cold Water" is a still later production, neither immodest nor wanting in merit, setting forth most laudingly the excellencies of cold water in gout. It is quite a curiosity in its way, and worth the perusal of anybody who may imagine hydropathy, as at present gulling people, to be anything novel.

In Rigby's celebrated "Treatise on Animal Heat" the use of cold water in gout is strongly contended for, and there are also many apposite cases and comments, in illustration of the principle. Almost within our own time, as the profession knows, Dr. Kinglake ventured the opinion, not novel, that gout is purely local, and only properly to be treated by local means. His cardinal remedy was cold water, which he used unscrupulously, at all hazards, and in all cases. Amongst *some* good, this indiscriminate form of treatment did much harm; and it is not a little amusing to consult the medical periodicals of from forty to fifty years ago, and see how the advocates and opponents of the cold-water plan fought with each other for preferment. Amongst those who abused it was a writer in the "Medical and Physicial Journal" for 1803, vol. ix., p. 362. He says:—

"Permit me to observe that Dr. Kinglake's use of cold in the gout is not so new and peculiar to himself as he appears to imagine. The illustrious Harvey, discoverer of the circulation, used to plunge his feet into cold water to mitigate the severity of the painful paroxysms of that disease. It has even been said that he shortened his life by that practice. The late celebrated Dr. Gregory, of Edinburgh, father of the present Professor of Medicine in that Uni-

versity, was very liable to gout. A friend of the present writer called on him one evening and found him bathing his feet in cold water. He observed to the doctor that he was doing what he would hardly recommend to his patients. 'No,' said the doctor, 'but this application mitigates pain which I am unwilling to bear, and I have hitherto experienced no bad effects from it.' The next morning the doctor, to the regret of every admirer of science, and of professional liberality, was found lifeless in his bed."

In the same journal for 1805, vol. xiii., p. 274, is an account of the death of Mr. Baker, an eminent surgeon at Uxbridge, through treating his gouty joints with cold water. We could quote many other such cases, but we confidently put forward this one, as equal to any specimen of "killing no murder" which the quackish hydropathy of this day can furnish. The following case, however, as showing how beautifully the cold-water plan may induce metastatic gout, we cannot help quoting for the benefit of our readers. It occurs in the "Medical and Physical Journal" for 1808, vol. xix., p. 525—538:—

"Mr. S., a vintner, aged forty-one, originally brought up a cabinet-maker, of regular habits and very industrious, one night awoke with a burning pain in the ball of the great toe, which kept him awake the remainder of the night. In the morning a considerable degree of tumefaction and redness had taken place, attended with much pain and total inability of motion. The system was in some measure affected; with a whitish tongue, the skin hot, and the pulse quick. Upon inquiry, this was the first attack of the kind he had ever experienced. His father and an uncle had been subject to gout for many years. An opening draught was directed to be taken immediately, six leeches to be applied to the part affected, and the bleeding encouraged by flannels loaded with vapour from warm water, as long as the blood would flow; after which, the whole foot to be kept immersed in cold water, and covered with folded linen moistened with the same." The treatment proved very successful for three days, then the mischief appeared in the elbow—this was relieved by constant applications of cold water—then arose constitutional fever, lasting for some time. At last the gout attacked the genitals, producing intense pain and tumefaction. Bark was then administered, with stimulants, under which the patient, after some time, recovered.

In this case there were two distinct *metastases*, of which, no doubt, cold water was the cause. Luckily for the patient, neither metastasis was to the head, heart, or stomach, or he would most likely have fallen a sacrifice to his rabid treatment. A little longer pursued, it would have killed him, not a doubt about it; and, as it was, he may be clearly considered as having owed his life to an opposite and a more rational plan of treatment.

Rheumatism is another disease for which hydropathy is prescribed as something *novel*. For *years*, for *ages* back, it has been a popular remedy! It killed so many people, however, that, in spite of any good it did, the public uni-



versally execrated it. It must have done murder pretty openly, and actually, or it would not have suffered abolition after having performed sundry cures, of which the following is a specimen. It is recorded in the "Med. and Phys. Journal" for 1803 (forty years before Priessnitz turned quack, and found plenty of bankrupt somebodies to join him), vol. ix., p. 549:—

"Nearly two years ago," says the narrator, a respectable surgeon, "after a day of great fatigue, I had occasion to walk, *au soir*, over a considerable extent of pasturage land, the grass of which was wet. I had not proceeded far before I began to feel uneasiness in my right ankle and foot, which, before the end of my ambulation, became so very painful that I was unable to walk without frequent haltings. I obtained no remedy from rest, for, the next day, the complaint appeared to be aggravated. The foot was swollen and turned awry, bending inwardly; this deformity was so great that a medical acquaintance affirmed there must be a luxation of bone. I knew, however, the complaint was only muscular. The ankle and foot were coloured with a rheumatic redness. In a few weeks erratic rheumatism afflicted every joint of my body. I had sometimes lumbago, at other times rheumatism in my shoulders, so badly that it was with difficulty I could put on my coat; in my wrist, that I could not supinate my hand; in my knuckles, that I could not pare an apple. In truth, for upwards of a year, I was lame and decrepit. To be plain, my infirmities began at last to acquire me the odious appellation of 'the lame doctor.' You may justly suppose I was solicitous to get rid of my vexatious companion' rheumatism. I used most of the medicines commonly prescribed for that disease, and also electricity. As for electricity, I should have been equally benefited had I merely rotated the electrical wheel. It is worth remarking, that, soon after the accession of rheumatism, I removed to another part of the globe. I dwelt four months within the Tropic of Cancer; yet a hot climate, and all the medicines I had taken, did not procure me a remission of the disease. Returning to England, I determined to try the effects of immersion into cold spring-water. I continued, indefatigably, the use of immersions nearly four months. I constantly bathed once, frequently twice, and sometimes three times, a day. At each immersion, I usually swam about in the water for a few minutes. For the first month the bathing seemed to have no other effect upon me than a remission of rheumatism while I was in the water. In the course of the second month I was more encouraged to proceed in my cold plan. At last I relinquished the cold bathing, because it was unnecessary to seek further for what I had already found—a perfect recovery."

We challenge *novel* hydropathy to furnish a cure like that; and, if our pages permitted the room, we could provide parallel instances of *killing* by cold water, which the present system can hardly transcend.

APOTHECARIES' HALL.—Gentlemen admitted members Dec. 10:—Julian Watson Bradshaw, Wm. Philson, Edward L. West, and Jonathan Barber.

## MEDICAL REFORM.

### LETTERS

#### TO THE MEMBERS OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

BY A GENERAL PRACTITIONER.

#### LETTER VII.

GENTLEMEN,—Although I intend that this letter shall close the series, in which I have exposed the short-comings and the political profligacy of the Council of the Provincial Association, yet I shall not fail to keep a vigilant eye upon all questions that involve the interests of the general practitioners, and shall, on all proper occasions, give you such counsel as I may deem necessary for the maintenance of your honour and the safety of your privileges. Whether the Editor of your transactions yet choose to consider me well or ill informed upon the complicated questions that have been embraced in these letters, I care not, and I am content to stand or fall in public estimation by what I have written. Whether a man acknowledge the authority or not, this is, after all, the tribunal which must pass judgment upon his labours. I am perfectly satisfied with the arbitrator.

Grosser acts of misgovernment, of betrayal of interests, of artful tampering with great public principles, of stealthy hipoecrasy, and of persevering exertions to compass private and sectional advantages, have never, perhaps, before been exhibited to the reproach of an intelligent public. Yet these are all—"all honourable men"! They are respectable in their private character, courted for their influence, and eulogized for their urbanity and learning; yet this does not prevent them from performing, in a public capacity, acts the most scandalously mean and degrading, and of betraying, for personal benefit, a public trust. In reading their documents, and tracking the sinuosities of their career, I have been struck with their inferiority of intellect—with the want of those comprehensive and masterly views of intricate affairs, and of that quick-sighted and searching intelligence that unravels difficulties, detects the result of unexpected combinations, and applies its exhaustless resources to meet every hazard with celerity, confidence, and skill. They are manifestly and deplorably wanting in all these qualifications for leadership in a great public movement; but they are, on the other hand, adroit proficient in every juggling turn and secret ambuscade that can promote their own little interests. They have also sufficient plausibility to deceive whom they intend to betray.

Although possessed of an annual income of nearly *two thousand pounds*, they have done nothing for science, nothing for the social benefit of their brethren, nothing for their political amelioration. The money has been squandered, and at this moment there is not one result at which we can point and say, "This is the memorial of the labours of the Provincial Association"! They have raised for us no marble monument to commemorate their learning or their patriotism; when they shall have disappeared from the scene of action, all that will remain will be the record of two names *cut in brass* for the undying scorn of posterity.

What, gentlemen, has become of the "SCHOOLS for the education of the sons of medical men," which Mr. Martin so zealously sought to establish? They have no existence: committees were appointed, reports made, and speeches delivered in eulogy of their advantages; but the Council took no decisive step to encourage their establishment. They were conceived, passed through a short period of gesta-

tion, and dropped stillborn from the womb. How did the Council act in reference to Mr. Daniell's *Benevolent Fund*? The same arts were put into play—a committee, a report, and a speech—and then sentence of condemnation was pronounced. The Council repudiated a scheme which I earnestly trust will flourish without their support. Mr. Daniell is right in withdrawing it wholly from their patronage; their assistance would be an incubus which would stifle it in its infancy, and leave it, like everything else they have fostered, an exanimate corpse. Their own Benevolent Fund is another failure, and, but for the unremitting exertions of one or two individuals, must have long since become defunct.

These, gentlemen, are the results of *fourteen years'* labours, and of the *ANNUAL expenditure of two thousand pounds of public money*. Yet I charge you more than them: it is your apathy, indifference, and want of attention to your public duties and private interests that have been the cause of such a profligate and unfruitful expenditure. The Council now follow out a system—they are bound by its chains, and walk in the track that fourteen years' of circumambulation have beaten out for them; it is your business to break up this useless combination, to excise the malignant tumour that now consumes the nutriment that should supply the wants of healthy structure.

"Young Physic" must measure its strength with the abettors of the ancient *régime*, the self-interested patrons of exclusive laws, and jobbers in corporate guilt. In speaking of "Young Physic," I do not mean the Young Physic of that Quixotic philosopher and pedantic drudge, the Editor of a certain quarterly journal, and also a member of the Council of the Provincial Association, who has lately endeavoured, in his extreme ambition to be brilliant, and extreme fondness for speculation and literary casuistry, to elevate two systems of quackery into the dignity and respect of authorized science. I mean "Young Physic" in the full demonstration of its working powers—in its aspiration for true science, and professional independence and honour, as they are daily exhibited in the growing intelligence and power of a large section of our legally-practising members. It is in our own ranks that we must look for Young Physic; and, if we would define the idea, it is especially in the ranks of the general practitioners.

"Young Physic" is an appropriate title for the designation of that large class who form the advanced guard of medical regenerators. They should embrace it, and league themselves together in the spirit which the appellation so strikingly expounds to the public ear. It is the spirit of scientific inquiry, of zeal for truth, of respect for the distinctions of merit, and the resolution to acquire them, of social advancement and professional emancipation; it is the spirit that shakes off the scaly incrustations of ancient abuses, and mounts unrestrained and pure with a panting desire to ally itself with all that is just, and wise, and universal. Its sympathies are in unison with the glorious revelations of moral greatness, with the potential determinations of will, with the undeveloped essentialities that are now breathing out their inspiration, and animating us to the achievement of the greatest enterprise which the professional masses have ever undertaken.

There are powers in the younger components of our profession which authorize the noblest anticipations of our future eminence and influence as a section of society. Our science associates us with every great improvement in the arts, and with every attempt to ameliorate the political condition



of the people. We send forth a greater number of labourers to the fields of philosophical research than any other department, and some of the most brilliant and useful discoveries of modern times have been made by our brethren. Political science, in its present experimental state, is a nullity without the information and opinion of medical men: no social reorganization can be effected until counsel be taken from our experience, and principles be adopted in conformity with the sanctions of our science. In the same degree that the health and social comfort of the people become the object of legislation will the science of medicine be recognised as the lawgiver to the state.

Our strength is in civilization, in advancing knowledge, and public enlightenment. We flourish not upon abuses, nor do we loom into magnitude from the shadow of darkness. As the truth shines upon the regions around us, it brings into prominence our superior claims. Truth is our friend, and let us be ever a friend to truth.

Now, gentlemen, I must conclude this series of letters. Some of you may think that I have dealt harshly with the offenders who have been the objects of my censure, but none of you can say that I have not exposed facts that have warranted the most indignant reproaches. It does not fall in the way of every man to become acquainted with the cunning and malversation of public bodies, nor is it necessary that every man who knows the wrong should be a voluntary prosecutor. The duty, however, must be done by individuals, and it is more incumbent on some than others; but whoever undertakes it must perform it in a truthful, unsparing, and unblenching spirit. In this spirit I have acted, and I do not think that I have brought one charge that I have not proved, nor hurled one denunciation that has not derived its force and sting from the evidence.

I must state to you again, however, that when my duty terminates, *yours* begins. You must repeat the blow that I have struck; and, if you believe that what I have written is true, you cannot, without a blush, consent to be the associates, supporters, and puppets of men who have so long used you for the advancement of their own interests. If you do, then I have mistaken your temper:—instead of writing to men, I have been addressing eunuchs whom party connection and weak prejudices have emasculated. I shall not believe that you are thus degraded until you prove it by your own act. No: I have entire confidence in your manliness and independence, and believe that you will not hesitate to withdraw from so injurious an alliance.

I have the honour to be, Gentlemen,

Yours very faithfully,

VOX VERITATIS.

## MISCELLANEOUS CORRESPONDENCE.

[To the Editor of the Medical Times.]

"Doctors dispute with rancour and illwill;  
They form systems, doomed too sure to kill."

SIR,—The discovery of truth must always afford unmixed pleasure to an intellectual mind. However tedious and perplexing may be the process which elicits that truth, a successful result will more than amply repay the toils of investigation.

Medical science, more, perhaps, than any other, demands a cautious and doubting temper: for, as it has no fixed premises on which to base its reasoning, we must be often obliged to hesitate in considering the due relation between cause and effect, and, therefore, frequently disposed to arrive at conclusions far from truth, the correction of which requires much time and patience. So long as the

essence of life remains a mystery, so long may we expect that a wide field will be afforded to the votaries of the healing art to display their ingenuity and zeal in the formation or subversion of systems which, emerging from the depths of uncertainty, are destined to an ephemeral existence. I was led to this train of thought, on the perusal of a letter from your homœopathic correspondent, of Norwich, in reply to an allopathist who severely attacked his cherished doctrines.

While willingly admitting the candour and sincerity of each, it may be permitted me to make the following remarks on the error which the opposer of Hahnemann is said to have committed, and from which the esteemed friends, as yet tyros in this school, are lamented not to have escaped.

Your allopathist, on the one hand, declared his body to be in the best possible state of probation for experiment, and courageously exposed it to the entire range of Hahnemann's infinitesimal battery; your homœopathist, on the other, so far from feeling disposed to give due merit to this voluntary martyrdom in the cause of science, rather grumbles, that the doctor did not previously mortify the flesh and present himself a more appropriate and meet offering at the shrine of his revered master.

Your Norwich correspondent then asserts, for he does not attempt to prove, that it is only in cases of disease, where morbid symptoms are present, that their medicines prove homœopathic, and, consequently, that it is absurd to expect any effects from them, unless those pathological symptoms are apparent, or the experimentalist's body so prepared as to be *delicate, irritable, and sensitive* to their minute doses. An illustration is advanced to enforce the weight of the assertion, and agents from every kingdom of Nature are invoked. The homœopathist here, however, altogether forgets that some of these substances—"musk," aroma of hay (*anthoxanthum odoratum*, L.), &c., will positively *not* affect the body when in an abnormal state, for instance, when the mucous membrane of the nares is inflamed, as every one who has had a "cold in the head" must have experienced. We perceive, then, that so far, at least, as regards the substances mentioned, health is no obstacle to the action of these medicinal agents; nay, on the contrary, that it is absolutely essential to their action. If, therefore, health be a paramount requisite in producing medicinal symptoms from substances taken in an extreme state of dilution, the rational experimentalist would naturally choose the same normal state of body when trying the effects of other attenuated substances on the same. He never could infer that his body, preparatory to the experiment, should be in a state of disease. The allopathist, then, having observed no symptoms from the diluted medicines he took, was borne out in the conclusion he drew, that their absence was to be attributed *solely* to their inertness, for he could, at will, produce effects by simply increasing the dose. As to the abnormal symptoms which the experimentalist said he felt after taking a *large number of globules*—viz., heat, dryness of throat—I look on these as either purely accidental, or produced from the spirit of wine in which the medicines were diluted. Each globule contains six drops of strong rectified spirit; now supposing he took, at least, twenty globules, he would then have taken about two teaspoonfuls of spirits—a quantity sufficient to produce the above symptoms on a person who declares he has abstained, for many years, from all stimulants.

To ask, why, if these infinite minute particles affect the body even in apparent health, other particles of matter should be deemed incapable of action on the body in a state of disease; to this, I reply, that as the terms contained in the question are not correlative, it is impossible to give an answer. What can be predicated of the one—health—cannot be predicated of the other, viz., disease.

It is to be regretted that the allopathist did not commence his ordeal by taking the bark, in the usual doses, and observing if intermittent fever was produced: for this alleged result is the keystone on which Hahnemann's entire medical fabric is supported; from this he proclaimed to the world his great *ἐμπειρία*, "*similia similibus curantur*." With regard, however, to this vaunted discovery, it must be lamented that we are left so much

in obscurity: the doses, the time of taking them, the peculiar type of fever produced, are carried with Hahnemann to the grave. One might suppose that the founder of a system would have been most scrupulous in noting the particulars of an experiment, on which not only his own fame and reputation depended, but which if true, would prove so very beneficial to mankind. The allopathist may, indeed, try the experiment, but I fear he will find himself in the same position, and require the same patience—as the rustic immortalized by the Roman bard:—

"Rusticus expectat, dum defluit amnis, at ille  
Labitur et labitur in omne volubilis ævum."

I cannot conclude without expressing my gratification to your allopathist correspondent for the very able and lucid manner in which he dissected and exposed the "*dissecta membra*," the "*similia similibus*," of Hahnemann.

Sir, apologizing for the length of these remarks, I beg to subscribe myself, to your useful paper, always

TENAX.

## THE GENERAL PRACTITIONER.

[To the Editor of the Medical Times.]

MR. EDITOR,—The letter of "*Candidus*," which appeared in your *Medical Times* of November 28, is as remarkable for its malignity as its ignorance.

"*Candidus*" sets out by assuming what has no existence, and then passes judgment upon the general practitioner, by calling him in no very ambiguous terms, "*Thief*." I must hope that "*Candidus*" sent you his name before you admitted his letter; and I have not much doubt that so directly personal is his epistle in some parts as to justify a belief that he is amenable to the usual forms of society for the coarseness of his attack.

I gather from "*Candidus*" these charges against the general practitioner:—1st. That he sends much more medicine to patients than their condition and disease require; 2nd. That he is not the friend of the poor which he pretends to be. "*Candidus*" has given us nothing but general censure, unsupported by one single fact. I shall not follow so bad an example, but endeavour to show, by evidence which cannot be disputed, that his assumption is false, and his judgment malignant. His first assertion is, that we give drugs in excess merely for the purpose of obtaining a greater amount of remuneration than the nature of the services justify. Now, here I join issue with "*Candidus*," and proceed to the evidence in support of my denial.

Some time ago I required a consultation with Dr. Bright, and we met according to appointment. After seeing our patient we retired into another room, and, having agreed upon the mode of treatment, the doctor took up his pen, and, being about to write his prescription, I stopped him and said—"You know my plan is never to send medicine merely for the sake of having an opportunity to make a bill, but always to charge for my professional visits where medicine is not required, or, if required, not in such quantity as to pay me for my time." His reply was—"Well, that is all very correct, but really the public is very much abused on this point. In consequence of this notion, that medicines are given in excess, the wealthy part of the community does not get one half the quantity which is absolutely necessary in the treatment of disease, and I can assure you that my hospital patients get double the medicines that the rich do, because I am unshackled in my treatment by any erroneous feeling; and no one can suppose that we prescribe more drugs for hospital patients than are absolutely necessary."

I presume that "*Candidus*" will not doubt Dr. Bright's honour, call in question his experience, or dispute his judgment; and I appeal to the reports of cases in your journal for the confirmation of this fact—that in all the hospitals of this kingdom the poor receive more drugs in the treatment of their maladies, than the rich do in their private dwellings.

In support of this statement, I know that the medical department of one of our large hospitals cost the friends of that institution more than £6,000 in one year for drugs and medicaments.



If any one doubt these statements, let him go to the wards of any of our hospitals, and examine the treatment as recorded in the books kept for that purpose.

Having disposed of one part of the charge against us by evidence of an unanswerable and public nature, I proceed to adduce another refutation from a private source.

I took the first ten names entered upon my day-book of this the 30th of November, and having made an aggregate of the medicines sent to these ten persons—all occupying stations of great respectability, and perfectly ready to take whatever was sent them—I found the amount to be 26s., giving something more, upon the average, than 2s. 6d. each; one of these patients living three miles and a half from my door.

It can be said that I am an exception. Sir, I know that I am no exception, but that all my professional brethren are more anxious to hold the confidence and affection of their friends, than to rob them of their money by sending drugs. The gratuitous and ill-placed attack of "Candidus," as to our devotion to the poor, and our motives, exhibits the very grossest ignorance.

Did "Candidus" ever hear of the cholera? Is he old enough to remember the visit which that frightful malady made to this country some years ago? Does he remember or forget how many of his order ran away from their post, and left the poor to the tender mercies of the general practitioner? and does he know how the general practitioner met the pestilential curse over the whole length and breadth of the land? I will tell him—just as poor Sidney Bernard, of the *Eclair*, did—by devoting himself to the wants and necessities of the poor, and in supplying him not only with those horrid drugs which so shock the delicate sensibility of "Candidus," but with food and money also.

I have been mixed up with the poor, more or less, for nearly forty years, and during all that period I have seen enough to convince me that no law ever has been, or ever can be, passed by the Legislature of this country, which will do otherwise than leave the poor, in their hour of sickness and destitution, to the benevolence and kind feeling of the general practitioner. And I will add more, that during all that time I have never met with one single instance of gross ingratitude from any of the poor, towards whom I had ever shown offices of kindness.

Every simpleton must be aware that the Poor Law has failed, in consequence of the framers of the bill having misunderstood the relation in which the poor stood to the general practitioner. So far from feeling any degradation from using and compounding my own drugs, I really feel that it gives us an immeasurable superiority. Many of my friends to whom I have given prescriptions on their leaving home, have declared that they have never been able to get them made up twice alike; and every one must be aware how ignorant the other classes in medicine and surgery are of all that belongs to the very instruments by which they hope to effect the cure of disease.

Is this wise? is it honest? No, Sir, it is false pride, and deserves contempt. It is, in fact, another phase of quackery, substituting parchment and assumption for that elementary knowledge which is essential to the formation of a perfect medical education.

SENEX.

#### THE COLLEGE OF SURGEONS.

[To the Editor of the Medical Times.]

SIR,—The great question of Medical Reform, which the profession have now determined to take up in earnest, is one so inseparably mixed up with the regulation and conduct of our colleges that it is impossible to enter upon the one without involving the other. No one can have the effrontery to say that our colleges represent the heads of the profession. As well might the Dean and Chapter of Westminster try to convince us that they represent the heads of the Church, or that the Society of Lincoln's Inn represents the head of the Law.

I am sure I can most faithfully say, as regards the College of Surgeons, that it is a complete

failure. I have no desire to belong to such a college, nor are they acknowledged as the head; neither should I feel the smallest honour in being elected to its councils: for what honour is it to elect yourself, and what honour is it to be associated with infidels and open revilers of revelation—with men who not only have no bowels of mercy for their poor and destitute professional brothers, but who use the lowest qualities of mind to deceive the public into the delusion that their own members are inferior to them? "The eye cannot say unto the hand, I have no need of thee; nor again, the head to the feet, I have no need of you." Are colleges practising such ignoble conduct as this, to be called the head of a profession? Was it for the manifestation of such unusually sordid and detestable conduct, as the Council of the College of Surgeons have been guilty of, that the heads of other professions have been brought down to posterity, riding on bronze chargers and standing on the tops of Corinthian columns? I have been taught otherwise. Let me ask a question: what constitutes, in any profession, a great man? When Rome was in its zenith, what was the highest reward given to those citizens who, by their deeds, had made themselves great? Did the mural or the naval crown precede the civic? By no means; on the contrary, he who wore the civic crown had the right of sitting in the public theatres, on the bench adjoining those allotted only to senators, who all stood up in deference, on the entrance of him who wore it. Thus, he who regarded the life of a fellow-citizen was more highly esteemed than he who could take a city or gain a battle. We are thus led to understand, that when the greatest city of the world was in her highest glory, the development of the noblest feelings of our nature was more highly distinguished than the mere naked talent. But in this country a man may be a perfect misanthropist, an infidel, a manslayer; but none of these are a barrier to the self-elected Council of the College of Surgeons, who, pure in their own estimation as the vestals of old, and, as if to mock their purity, have the maces of the Prætors borne before them.

But, Sir, does not the deformity of these very men attract the notice of all around them? What would you say if it were possible to meet a person walking in the streets, with one side of his body symmetrically formed, while the other was distorted and shrivelled? Would you not behold him with wonder, keeping your eye upon him as Hunter did on O'Brien, if haply a time might not arrive when such an object would be a fit subject to figure in the Museum? And yet, if the bodily conformation can be so much a matter of astonishment, how is it that a similar deformity of mind gets overlooked? The truth is, it is not overlooked, and for twenty long years we have openly protested against the evil; \* but the glory of greater nations than our own has passed away because they fostered similar injustice, and, if we cease to be a nation, it will be because our counsellors have turned away their ears from the cry of injustice and oppression. "He hath showed thee, O man, what is good: and what doth the Lord require of thee but to do justly, and to love mercy, and to walk humbly with thy God?"

I am, Sir, your faithful servant,

A GENERAL PRACTITIONER.

\* Why do not the Council of the College of Surgeons resign? Why are they so anxious that the Minister of State should be brought round to believe their college is all perfection? Because their by-laws are unjust, and, their reputation being built upon them, they must fall to their proper level whenever they are rescinded. Fear not, my brother practitioners, though your necks are at present under the feet of your most malicious enemies. Fear not, for it is impossible to last.

#### UTERINE HEMORRHAGE.

[To the Editor of the Medical Times.]

SIR,—Permit me, through your pages—with all due deference to Dr. Torbock, but in justice to my much-respected preceptor, Dr. Wm. Campbell, of Edinburgh, to whom I was many years ago both

pupil and assistant, and, therefore, had the opportunity of carrying into practice his instructions, and also of assisting him to carry out those principles practically to his class—to say that, if Dr. Torbock will refer to Dr. Campbell's work on Midwifery, &c., published in 1833, he will find that, years previously to that date, stimulants were employed by him in extreme cases of uterine hemorrhage; which practice I then pursued, and still continue whenever a case presents itself, never having used any stimulant but the Ol. terebinth., and that more or less diluted (its effects always proving highly satisfactory to me). Other stimulants might prove equally efficacious and safe, and I think the success which has attended Dr. Radford's cases may very properly be attributed to the stimulant effects of galvanism. I have always considered that, in the extreme cases of uterine hemorrhage arising from exhaustion and a relaxed state of the uterus, local stimulants are indicated, and I should be very much more disposed to place confidence in them for their speedy, permanent, and safe action, than to any other means with which I have been made acquainted.

The subject is of such vital importance that I trust Dr. Torbock will not neglect to favour us with his cases.

GEO. WOOLLAM, M.D., &c.

Ashton-under-Lyne, Dec. 14.

#### EXTRAORDINARY CORONERS' INQUESTS.

[To the Editor of the Medical Times.]

SIR,—I send for your perusal the reports of two inquests, held last week at Stratford-on-Avon, extracted from *Berrow's Worcester Journal*.

The first case is remarkable, as showing with what impunity chemists and their assistants are permitted to practise in this locality.

You will observe, that not one word of caution to the chemist, nor one word of comment on the illegality of his conduct, escaped from the coroner, whose duty it obviously was to warn him against, in future, ignorantly trifling with the lives of the public.

Now, here is a clear case for the Apothecaries' Company, with the best evidence of infringement of their laws by an unlicensed man, ready prepared for them. Will they take cognizance of it? I fear not.

The second case reported is notable from the extraordinary evidence of the medical witness.

In answer to a very pertinent question by one of the jury, he observes, that "if life had been destroyed previous to immersion, the deceased's body would have been warm, or warmer than it was." Now, this sounds so very like an outrage on common sense that it appears to me incredible that a coroner, possessing the most rudimentary knowledge of medical jurisprudence, or even ordinary intelligence, could allow such an observation to pass for evidence, without requiring further explanation of so singular a phenomenon.

I think, Sir, you will agree with me, that inquests conducted in the loose and inefficient way in which these have evidently been, can only be regarded as so many judicial farces, and as a wanton expenditure of the public money: moreover, that they cannot fail to bring the coroner's court into greater contempt than recent notorious events have already involved it in.

I am, Sir, your obedient servant, A. H. H.

#### QUALIFICATIONS AND TITLES.

[To the Editor of the Medical Times.]

SIR,—Observing among your answers to correspondents in the number of your journal for 31st October two replies which I believe calculated to convey erroneous impressions, I take the liberty of supplying what appears to me the necessary correction. The matters referred to are, the respective characters of the examinations for the intra and extra-urban license of the College of Physicians, and the kind of examination required for a diploma at St. Andrew's.



With respect to the first of these points, I have good reason to know—my information being derived from trustworthy licentiates of each class—that you were wrong in stating that “the examination of extra-urban licentiates does not materially differ from that of intra-urban licentiates.” The candidates for the extra-license do in fact undergo a very trivial examination, neither in severity, extent, or duration equalling that required of candidates for the license of the Apothecaries’ Company; while the intra-urbans are exposed to a very careful and complete ordeal, on three separate days, in writing, besides being frequently called upon to answer *viva voce* questions, some of which are put and required to be answered in Latin. A knowledge of this difference in the qualifications demanded of the two classes of candidates has led to a corresponding demarcation as to the qualifications required to be possessed by candidates for the office of physician in many of our provincial hospitals; *licentiates* being in many cases admissible, but *extra-licentiates*, unless furnished with other degrees, not so.

Next, as to the examination at St. Andrew’s. Here again your reply would lead to a very unjust estimate of the true character of the examinations. I have learnt the particulars of several examinations undergone by candidates for the degree of M.D. at this university, and feel very confident that they are calculated thoroughly to test the competency of those who submit to them. The proportion of rejected candidates there, is, I believe, larger than at any other of the Scotch universities; and those who have presented themselves for examination, in expectation of such a gentle test as it has pleased some detractors to assert is all they have to expect, have gone away again, convinced to their cost of the error into which they have been drawn. I would refer such of your readers as may be interested in the matter to a refutation, published in the early part of last year, by the *Senatus Academicus* of St. Andrew’s, of certain aspersions which had been cast upon their system and practice, in the granting of medical degrees. Your “worthy friend hard by” is as far out in the pounds, shillings, and pence part of his answer, as in the sneer implied in his exclusive reference to the amount of the fees, which, instead of being from “seven to ten pounds,” is twenty-five or twenty-six pounds.

I am, Sir, your obedient servant,

Nov. 17.

X. Q. Z.

\* \* We retain our opinion both on the merits of St. Andrew’s and the distinction between the examinations at the London College of Physicians.

#### GOSSIP OF THE WEEK.

##### INQUESTS AT STRATFORD-ON-AVON.

An inquest was held on Saturday last, at the Falcon Tavern, before H. O. Hunt, Esq., coroner, and a very intelligent jury, on the body of an infant, aged three months, the son of some labouring people named Taylor, living by the water-side in that town. After the jury had been duly sworn, they proceeded to view the body; on their return, the first witness called was the mother of the infant, who stated that her name was Caroline Taylor, wife of John Taylor. The child was about twelve weeks old, and had been unwell a fortnight; on Wednesday it was worse, and she went to Mr. Kendall’s, a chemist, whose assistant gave her a cough mixture, and requested her to call again in the evening, when Mr. Kendall would be at home: she did so, and received another mixture, which appeared to relieve the child. On Thursday evening she thought the infant so much better that, with the advice of a neighbour, she went to bed early; about five o’clock in the morning she awoke, and perceived a change in the appearance of the child, and called up a young woman who slept in the same room, and who knocked against the wall for a neighbour, but before she could come in the child died.—F. Pritchard, Esq., in his evidence, said he had made a *post-mortem* examination of the body; found the lungs inflamed, and in a state of congestion, the viscera and bowels in a healthy state. He considered the immediate cause of the child’s

death was inflammation of the lungs, and had no doubt, if proper medical advice had been obtained a fortnight sooner, the child’s life would have been saved.—Verdict, “Died from inflammation of the lungs.”—The coroner afterwards addressed the mother of the child, and said it could not be too widely known amongst the poor, that medical aid could at any time be obtained by applying to any of the district medical officers of the union.

Another inquest was held, at the Falcon Tavern, on the same day, before the same coroner and a respectable jury, on the body of a man named Skinner, who was found drowned, on Friday morning last, close to the floodgates of a weir that is thrown partly across the Avon, opposite the village of Luddington, near to Stratford-on-Avon. The deceased was of very intemperate habits, and, after indulging in drink, became much depressed in spirits, frequently complaining that his head was affected, and during the last twenty years had made two previous attempts to drown himself. He was a tailor by trade, and in the habit of going to the different farmers in the country to make clothes, and always bore a good character for honesty and general inoffensive manners.—Richard Riley was the first witness sworn, who deposed to the finding of the body when he went down to draw Mr. Boddington’s eel-traps at the floodgates; did not know who he was.—Thomas Dyke deposed that he was constable of the hamlet of Luddington; was present when the body was taken out of the water; knew him to be John Skinner, a tailor, who lodged at Shottery; his fingers were slightly contracted. Perceived a boat belonging to Mr. Coles a short distance below; the lock with which it had been fastened to the post had been taken away. Saw the boat secure at about six o’clock the previous evening. The body discovered nearly twenty yards from the boat.—The coroner inquired, if the floodgates were closed, could a person walk over them?—Mr. Boddington: It was quite impossible.—F. Pritchard, Esq., on being sworn, stated that on Friday afternoon he had made an external examination of the body. Found no marks of violence or bruises; noticed a slight abrasion of the cuticle of the forehead; the body was extremely cold; froth issuing from the mouth and nostrils. Saw the body twelve hours after it had been taken out; the hands were slightly clenched. He had no doubt the internal appearances would, on examination, correspond with the external.—One of the jury: Did the body present appearances similar to those of persons accidentally drowned?—Mr. Pritchard considered it did. If life had been destroyed previous to immersion, the body would have been warm, or warmer than it was, and would not have had the appearances it exhibited on his examination of it.—John Pace deposed that the deceased had lodged with him fourteen years; he would have been sixty-one years of age shortly after Christmas; saw him last alive on Wednesday night. The deceased was in the habit of early rising. When the witness passed through Skinner’s room, he found he was not there. About twenty years since he attempted to commit suicide; repeated the attempt seven years ago. Always considered he was of a quiet disposition, but given to drinking.—In answer to a question from a juror, the witness said he did not hear any noise in the night.—Mary Robins was the last witness called. She was first cousin to the deceased, and corroborated Pace as to the deceased’s drinking propensity, and his attempts at self-destruction. Saw him last alive on Sunday, when he took shelter in her house from a shower of rain, and partook of some dinner.—The coroner inquired from the Luddington constable if any money was found on the deceased?—Mr. Dyke said that nothing but two or three pieces of chalk were found on him.—The coroner very clearly summed up the evidence, and the jury returned a verdict, “Found drowned, but how he got into the water there was no evidence to show.”

PROMOTIONS AND APPOINTMENTS.—H. D. Shea, Surgeon and Medical-storekeeper, at the Cape of Good Hope. A. R. R. Preston, Acting-Assistant-Surgeon, to the Bramble. Salter Livesay, Surgeon, to the Albatross.

NAVAL APPOINTMENTS.—John Wilson (B.), surgeon, to the Caledonia. Charles S. Lester, assistant-surgeon, to the Recruit. Henry Wellings, acting assistant surgeon, to the Albatross. Bernard Delancy, acting assistant-surgeon, to the Caledonia.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, Dec. 11:—H. Haycraft, R. M. Craven, C. Palmer, G. Holland, H. Sutherin, W. H. Clarke, M. Francis, R. Allen, J. S. Beale, G. H. Edwards, C. R. Robinson, and J. Kidd. Members admitted fellows by examination on the 10th inst.:—Messrs. R. W. Bloxam; Isle of Wight; G. B. Childs, Fore-street, London, J. Jones, Judd-street, Brunswick-square; F. J. Toulmin, Upper Clapton.

FERRUGINOUS REMEDIES.—It is a remarkable fact, in relation to ferruginous remedies, that they were used by the ancients in chronic enlargements of the spleen. Jackenius, quoted by Orfila, says, “*Ferrum ab antiquis celebratum in splenis affectibus, qua et hodie non sine fructu utimur.*” (Hip. Chym. Præf.) This practice is still followed in Italy, not only in this disease, but also in all chronic visceral enlargements. The soluble salts of iron are chiefly used, as the sulphate, in doses of from three to eighteen or twenty grains, or more, in the day. In the latter doses the sulphate of iron lowers the pulse remarkably, like digitatis or sulphate of quinine; and it is really incredible how the physicians of Paris retain with such obstinacy the opinion that chalybeates are tonics and excitants. Nothing is easier than to convince oneself to the contrary. Give a patient from acute rheumatism, or other inflammatory disease, twenty, forty, sixty grains of sulphate of iron in six ounces of water (a spoonful each hour), and observe its effects. There is not the least danger.—“*Ann. de Thérapeutique*,” Dec., 1846.—[Although ferruginous remedies are great favourites with us, and we constantly employ them in a variety of chronic diseases, yet we must range ourselves with the obstinate physicians of Paris in rejecting them in acute affections, until better evidence has been given of, at least, their innocuous nature under such circumstances.—ED.]

#### MORTALITY TABLE.

For the Week ending Saturday, Dec. 12, 1846.

Causes of Death.	Total.	Average of	
		5 autumns.	5 years.
ALL CAUSES.....	1163	1000	968
SPECIFIED CAUSES...	1159	992	961
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	191	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	113	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	150	151	157
Diseases of the Lungs, and of the other Organs of Respiration.....	416	313	294
Diseases of the Heart and Blood-vessels.....	63	29	27
Diseases of the Stomach, Liver, and other organs of Digestion.....	80	70	72
Diseases of the Kidneys, &c.	11	8	7
Childbirth, Diseases of the Uterus, &c.	16	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	6	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	4	2	2
Old Age.....	66	66	67
Violence, Privation, Cold, and Intemperance.....	27	27	26



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## A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

By SAMUEL WRIGHT, M.D.,

Physician to Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; Physician to the General Dispensary; Extraordinary Member, and formerly Senior President, of the Royal Medical, Royal Physical, Hunterian Medical, and Cuvierian Natural History Societies of Edinburgh, &c.

*Morbid states of the tongue; artistical illustrations thereof; furred tongue, unconnected with dyspepsia, often seen in nervous subjects; clean tongue in dyspepsia; examples; furred tongue from an empty or a full stomach; mental emotions affect the visible condition of the tongue; examples; cautions respecting the examination of this organ; physical states of which it is an evidence; improvement of its appearance, and inferences therefrom; examples. The pulse as a pathognomonic sign; cautions respecting examining it early in consultation, or when the patient is hurried or excited; idiosyncrasy in reference to the pulse; habitual intermission, quickness, or slowness, of the heart's action. Necessity of inquiry concerning the secretions; manner of making it; physical diagnosis, how and where to be made.*

GENTLEMEN,—At the conclusion of our last lecture, I remarked to you how numerous, and how necessary to be known, are the pathological relations of the stomach to other organs. I cautioned you, to be ever careful in investigating the condition and function of the alimentary apparatus. To this end, amongst other matters of inquiry, the appearance of the tongue claims your particular attention. This organ, as you know, performs a very significant part, as well in our moral as in our material nature; it represents, with almost equal fidelity, the condition of our physical and immaterial entities. In all ages its importance and power have been acknowledged—from the period when Fulvia tore it from the mouth of the martyred Roman orator, and bored it through with a bodkin, up to the present day, when whole books are filled with wonders concerning it. Even the fine arts have been laid under contribution to its pathological definition and display, for we have elaborate paintings representing tongues of all sizes and hues, of all degrees of moisture and dryness, with coatings of fur of all depths, and of any colour you like. Plaster casts of this said organ are also provided, to show how morbid (*materially* I mean) it may become; and it will be no wonder if, in this age of illustration, we some day see it flattered in *papier mâché*, or even in marble.

Whilst some are disposed, in a prodigality of prejudice, to look upon the tongue as pathognomonic of nearly all the "ills that flesh is heir to," others make comparatively light of it, and consider its testimony as little trustworthy. To be amongst the best judges on the subject, is to belong to neither of these parties. As a rule, the tongue is a very faithful indication of the condition of the

alimentary organs; but its evidences are not unexceptionable. A furred tongue, for instance, is a common indication of dyspepsia, but it is not a constant one. You sometimes meet with irritable, nervous subjects, whose tongues are habitually furred, yet without any signs or symptoms whatever of gastric derangement. Others, again, will have clean tongues, and of natural redness, whilst they are suffering from severe stomach disorder. I called your attention to a case of this kind the other morning, in the person of a female, the subject of very severe pyrosis. During the three weeks that she has been under my care, the tongue has never lost its cleanliness or good colour. I once had a dispensary patient afflicted with scirrhus of the pylorus, of which he died, yet up to the time of his death the tongue was scarcely ever furred or dry. Various circumstances exert a remarkable influence upon this organ. Some people, otherwise healthy, get a furred clammy tongue if their stomachs are empty a little longer than usual; it is the case with myself: I invariably exhibit this peculiarity in a morning, if I go supperless to bed. Others have their tongues furred always when their stomachs are full; the coating continues only during digestion, and passes off as this function ceases. Mental and moral emotions affect the condition of the tongue in a singular manner; perhaps it never becomes morbid without the nervous function, in its higher offices, being somewhat implicated. This would explain why a furred tongue is so rarely met with in the inferior animals. It may happen, and I think not unlikely, that in dyspepsia, the disorder the brain suffers, sympathetically with the stomach, has as much share as this organ itself in giving the tongue its characteristic coating. Certain it is, as I have said, that the feelings of the mind will, in a very few minutes, render a clean tongue a foul one. This is a subject which I have been induced curiously to inquire into for some years past, and I have seldom met with an exception to what I have just observed. Amongst those terrified by sudden apprehensions, or shocked by the sudden advent of ill news; amongst the hypochondriacal, hysterical, gloomy, and desponding, you will find many examples of the mind's influence, in this particular, upon the body. A patient of mine, living near this town, will well illustrate what I say. He is a man of remarkably good constitution, and moulded like a miniature Hercules. Moreover, he has no encumbrances; an excellent mercantile business, that takes up little of his time, is partial employment for him, leaving him many leisure hours in every day that he has

some difficulty in disposing of. These he chiefly occupies in fancying himself the victim of all possible kinds of ailment. There is no disease in the nosology too much for his imagination. Of course, these things are all imaginary, and tiresome enough to listen to, when your judgment and sense of justice tell you that it is not a case for "physic and a physician." You will anticipate my saying that this gentleman is possessed of a most unfortunate nervous sensibility, which chiefly manifests itself in an ideal pathology, all reflected upon his own person. The peculiarity in point, however, which I chiefly wish to speak of, refers to his tongue. I have never yet seen him with this organ quite clean (although I have not once attended him for dyspepsia), yet the readiness with which it acquires a fur is very remarkable. Many times have I examined his tongue, and found it comparatively what it ought to be, before hearing a recital of his imaginary maladies; and after this, in some quarter or half an hour's detail, that same tongue has put on an aspect almost like that of flannel. I am at this time attending, with Mr. Carter, a patient, one amongst the pitiable many, who have seen better days. I shall take occasion hereafter to give you his case in due detail, but, for the present, I may observe that his tongue has the peculiarity characteristic of the one just spoken of. I should premise, however, that there is a fancied trouble in the one instance, and a matter-of-fact one in the other. Four days ago, in calling upon the gentleman I am now alluding to, one of the first things I did was to look at his tongue. I found it, as usual, very pale, flabby, and moist, but without any coating. After having made other necessary inquiries, I was informed by my patient that his heart, which has long been disturbed by mental emotion, the other night beat with unusual vehemence and irregularity. On my asking if he could account for it, he told me that he had just then received the distressing intelligence that an uncle, from whom he expected a competency, had not left him a shilling! This pitiable tale, told with much earnestness and visible feeling, occupied little more than twenty minutes; at the end of that time I again looked at his tongue, and found it coated with a thick white fur!

I mention these things, thus generally, to you, not only as items in pathology with which you ought to be made familiar, but also as suggestive of a discreet rule of practice, viz., to let the examination of a patient's tongue be one of your first duties at his bedside. My own experience, perhaps not inconsiderable on this point, enables me to say that in nine cases out of ten, and more especially



amongst females, when you have to attempt physical diagnosis, the tongue will be found, at the time of your first entering the sick-room, in a very different condition to what it will be in after half an hour's questioning and manipulation.

Besides moral and mental states, there are certain physical ones, of which the tongue is an occasional, though not an invariable, evidence. Our hospital opportunities have lately given me the occasion of showing you these pathognomonic facts somewhat strikingly. I have dwelt with particularity upon them at the bedside, and have no doubt that they are still fresh in your remembrance. You have seen in several varieties the dark, dry tongue of typhoid fever; the glassy, bright red tongue, with its elevated papillæ, in sub-acute gastro-enteritis; the brown furred tongue of dyspepsia, with bilious derangement; the pale, flabby, furred, sodden tongue of chlorosis, habitual drunkenness, debility of the gastric apparatus, &c.; the pale, or patched, trembling tongue of the hypochondriac, the dissipated, the excessively weakened, from whatever cause; the dry, contracted, dusky-red tongue of gastric irritation, &c. Other than these you have had shown and explained to you, which a running comment leaves me no time to dwell upon. It will become our more specific duty hereafter to deal with them, according to their several claims upon our attention.

A morbid state of the tongue not only indicates (with rare exceptions) the condition of the gastric apparatus, and of the system in general, but an improvement of its appearance denotes, also, that the patient is advancing towards recovery. This change sometimes occurs with singular suddenness, and the patient as suddenly gets well. You remember the girl Seandret, in the middle ward, whom we had some difficulty in relieving of fever that had supervened upon dyspepsia. At last I told you that I saw nothing to contra-indicate the exhibition of minute doses of strychnine, which I thought was likely to be serviceable in her particular state of stomach. Her tongue was broad, flabby, indented at the edges, very trembling, and completely covered with a dense white fur. She complained of a feeling of hollowness or sinking in the epigastrium, with frequent darting pains there, and occasional fits of nausea; her food always lay like a load in her stomach, and oppressed it with flatulence. She was ordered the twelfth of a grain of strychnine three times a day. She had only taken five doses up to the time of our next visit, and you remember how altered she then was. Her tongue had no indentation on it; scarcely any fur; its trembling was almost imperceptible, and its size diminished. She had had no gastric pain or flatulence after the first dose of strychnine. In four days afterwards she left the hospital, apparently quite well. I told you that the appearance of her tongue, and her expressed symptoms, indicated that her stomach was suffering from *irritability, the result of local nervous debility*: the manner in which she improved under the strychnine confirms me in that opinion.

There was another case to which I called your particular attention, a short time back, in the person of a girl, I forget her name at this moment, in the top front ward. When convalescent from fever, she one day begged to be allowed some beef for dinner. Her tongue was very furred, but there was nothing else to prohibit the gratification of her appetite; and she asked so imploringly that I ordered her some roast beef, at the same time remarking to you that it was not improbable her anticipated meal would clean her tongue. The next day confirmed what I had said: we found her with neither fur nor fetor in her mouth, and she required no more medicine during the few remaining days that she was in the hospital. It is not always safe to gratify the inclination of patients' appetites, for they are sometimes disposed to crave for very strange things; but when the material wished for is not in itself bad, and there are no particular contra-indications to its use, it is often well to allow a little indulgence, and more especially if it be eagerly sought. Inclination and appetite have frequently a very great share in promoting good digestion. I have known oysters, lobsters, pork, pastry, and such like, allowed almost ad

*libitum*, for once, to patients, not only with impunity but with advantage. I mention these as curiosities of experience, not as examples for imitation.

You remember the boy Gill in the top ward: he was dismissed cured, the other day, but excepting Griffiths', his was the most intractable case of typhoid fever we have had during the late prevalence of this ailment. On visiting him, one day, we found him suffering from severe pain all over the bowels, but chiefly about the epigastrium. The pain had come on somewhat suddenly, and had only varied by gradually getting worse. It was augmented intolerably by pressure; his skin was hot and dry; pulse 130, small and hard; tongue perfectly dry, as it had been for some days; fiery red, and rough from elevated papillæ; bowels well open. He was extensively leeches over the seat of pain, and a linseed-meal poultice, renewed every three hours, was kept over the entire abdomen, until we saw him next day. We then found him utterly free from pain, and his tongue was, what it had never been since his admission (three weeks previously), quite moist, scarcely redder than natural, and its papillæ little elevated. This striking change was clearly the result of leeching and poulticing the abdomen; and it occurred in less than sixteen hours!

Not always, however, does an improved state of the tongue indicate *bodily* improvement or a tendency to recovery.

You will recollect my ordering Jones, in the middle ward, three glasses of port-wine daily. In twenty-four hours after having begun to take it, we found his tongue quite moist and free from the dark fur that had previously coated it, and the sordes were off his teeth. In only these respects, however, was he improved, and, though his tongue never became brown again, or very dry, yet he gradually sunk, in spite of the stimulation.

So much for the tongue, which, though a very good guide in diagnosis, you see is not an infallible one.

The pulse again, though a valuable evidence in the main, is sometimes deceitful. I told you to let an inspection of the tongue be one of your *first* duties at the bedside — let an examination of the pulse be one of your *last*. It is next to impossible that a patient will be unaffected by the entrance of a medical man into his room, especially if he be coming for the first time. At the best, there is something formidable in this, and I need not tell you how mental emotions reflect themselves upon the heart. Scarcely is the needle more true to its polarity than this little organ to manifest the pleasurable and painful feelings of the mind. In bearing these facts in remembrance, then, you will see the desirableness of having your patient as calm as possible before feeling his pulse. I have repeatedly, to satisfy myself of the value of the advice I am giving you, examined the pulse shortly after my introduction to a patient, and again shortly before leaving him, and have found, in divers instances, a difference of from twenty to forty beats. This is very serious, you know, in endeavouring to form a correct estimate of pathological states. If your patient be very irritable and excitable, as you commonly observe amongst nervous subjects, especially of the female class, endeavour to allay the excitement somewhat by cheerful or consolatory expressions, or by diverting the mind to some fresh object before examining the pulse. Always do this without any unnecessary gravity of look, pomposity of manner, or solemn shaking of the head; at best there is nothing but nonsense in such things, and they may possibly produce offence or very needless alarm. Patients are very apt, when you ask for their pulse, suddenly to raise themselves in bed, or rise from the chair, as the case may be. Always desire them to lie or sit down again, and pause for a while until the effects of the exertion shall have passed off. If you neglect this caution with certain subjects, you may obtain very false evidence as to the force and frequency of the heart's action. In extreme nervous debility, in hysterical affections, in various disorders of the brain, and in almost all heart affections, you will find an observance of the precaution I suggest of not a little value. I have a

patient at this time suffering from dilatation of the heart, whose pulsations are as much affected by his rising from the recumbent to the upright position, as you generally observe in people who are strongly under the influence of digitalis.

Do not forget that *idiosyncrasy* is sometimes shown in the pulse. Thus, you occasionally meet with regular or irregular intermission of the heart's action, which, on inquiry, you find to be a constitutional peculiarity. I have known several such cases, and, in more than one of them, the individual had generally enjoyed good health, and had reached something more than an ordinary old age. Habitual quickness or slowness of pulse is another peculiarity you now and then find. I know a lady, about forty years of age, whose pulse is almost never below one hundred and twenty beats per minute, nor has it been for many years past; yet she enjoys robust health, and is the mother of several strong children. In the days of my pupillage, I knew a man, about sixty years of age, who had a remarkably slow pulse. I many times counted it for curiosity, and never once found it as many as forty in the minute. It was generally about thirty-four, and this, he told me, had been its average his life through. I remember, about four years ago, being shown by Dr. Fletcher, of this town, a man whose pulse was as slow as that just mentioned.

Always bear in mind that, as a rule, the pulse varies, in force and frequency, with age; that it is quicker in women than in men; that in very fat subjects you may think it more feeble than it really is; and that in very thin ones, for the reverse reason, you may give it credit for more strength and volume than it really possesses.

Amongst your other bedside duties, never forget to inquire after the secretions. You may carry this form of investigation to a fanciful or an officious excess, and then it becomes ludicrous enough; but even this is not worse than wholly neglecting this department of pathology. Test a patient's saliva, and, if you find it *acid*, there can be no doubt of its disorder, for it *ought to be alkaline*; touch his skin, and, if it be tight and dry, there is plainly something wrong, for it ought to be soft, and moderately moist; examine his urine, there may be more or less than natural, it may be lighter or denser than it ought to be, and there may be ingredients in it, or deposits from it, pathognomonic of various morbid states; look at his fæces, they may be too scanty or too abundant, too liquid or too solid, be deficient in bile or contain an excess or a depravity of it, or abound in fat or in mucus, or in worms.

These are subjects necessary to be inquired into. Make that inquiry scientifically, and with precision, without any unnecessary display, or assumption of particularity and importance.

Concerning the mode of making a physical examination, properly so called, this is not the place to speak. It is a matter altogether of demonstration and explanation, *de facto*, and only at the bedside can be properly conducted. To occupy your time with a detail of the different sounds of the heart and lungs, emitted in their morbid states, would be to advance very little towards making you practically acquainted with them. There are plenty of books that abound in such details, and you may read them until their contents are as familiar as your multiplication table, but you will not be good stethoscopists in consequence. It is easy enough to say what sounds prevail in this disease or that, of the heart and lungs, just as it is simple enough to describe the different processes of a capital operation; but *actually* to make the diagnosis in one case, or to perform the operation in the other, is a different affair altogether. To enable you to diagnosticate from physical signs is a day-by-day business, which we must conduct together in the wards of the hospital. Whenever the occasion may serve, and I think it will not be seldom, I shall lose no opportunity of informing you on these most important subjects, to the best of my ability. But, remember, the evidences of auscultation and percussion are only to be obtained, like the *tactus eruditus*, by experience and judicious reflection.



DUMAS ON ORGANIC CHEMISTRY.  
No. V.

## PHENOMENA OF COMBUSTION IN ORGANIZED BEINGS.

(Continued from page 218.)

The facts which we have been considering in the foregoing lectures lead us, then, to the following inevitable conclusion: that man consumes two kinds of products—the combustible, carbon and hydrogen; and the producer of combustion, oxygen, which burns the other matters. But, to satisfy the wants of life, these bodies must be presented to one another under certain forms. It appears, then, evident that, at the moment of expiration, the economy instinctively perceives the necessity of freeing itself of an atmosphere too much loaded with carbonic acid, and which, from that very property, would act as a poison, especially with hot-blooded animals.

This consideration leads us to inquire, what is the quantity of air absolutely necessary for the maintenance of life, in man, during a given period? We have already stated, that from seven to eight cubic metres of air daily pass into the human lungs; should the air be too much rarefied or too condensed, the respiration is either accelerated or slackened, so as always to furnish to the lungs, within a given time, the same quantity of oxygen as would be contained in these eight cubic metres. But it would be a grave error to suppose that a man could exist without suffering, if so placed that he were confined to a space corresponding to eight cubic metres of air, each day. Imagine, for instance, that a certain number of men were collected together in a securely-closed room, of such size that each had but eight cubic metres of air assigned to him; instead of respiration being carried on uninterruptedly for the twenty-four hours, we should, after a short time, find symptoms of asphyxia manifest themselves in a great number of these prisoners, and certainly, at the end of the day, there would be but few who would come forth alive: for the whole atmosphere of the room would be saturated with the carbonic acid, which is being each instant rejected from the lungs as poisonous. Hence the paramount necessity of ventilation.

Experiments have shown that, where numbers of men are congregated together, the ventilation ought to be so arranged that each individual may have at least from six to ten cubic metres of fresh air every hour. M. Pelelet, who has devoted much time to this subject, as applicable to our places of public assembly, schools, &c., has, after many trials, adopted the above calculation, which he thinks may serve as the basis for an efficacious system of ventilation. In this proportion, the temperature is not raised to an inconvenient height; and the animal emanations, the existence of which cannot be doubted in air that is not frequently renewed, exercise no appreciable influence over the smell. This quantity of air is enormous: it is from twenty to thirty times greater than the amount that is completely vitiated by man during the course of the day. We are consequently led to the conclusion that, independently of the carbonic acid, the poisonous action of which is incontestable, other injurious agents are met with in large assemblies, and in most inhabited places—such as, the accumulation of aqueous vapour, the elevation of the temperature, and the production of animal emanations—all of which render indispensable a frequent renewal of the air.

The presence of carbonic acid in the air of inhabited places forms, notwithstanding, the chief, and heretofore the only, criterion by which to measure the extent of deterioration which the air has undergone, and on which to found our estimate of the means proposed for its remedy. The following are the results arrived at by M. Leblanc, after a series of researches relative to the composition of the air, which were conducted under various circumstances. In the wards of some of the Parisian hospitals he has found, early in the morning, the air charged with as much as one per

cent. additional carbonic acid. Undoubtedly this excess of carbonic acid must be regarded as injurious, however short may be our detention in it. To be convinced of this, we have but to bear in mind that the air expired from the lungs contains but from three to four per cent. of carbonic acid, and that, in this proportion, it really seems to exercise a prejudicial action on our economy, since the necessity of expelling it is uncontrollable.

Experience has proved that the effect of natural ventilation, by the opening of doors and windows in a confined place, and where there are no further provisions for determining an active current, is less marked than one would be led to suppose; it is, in most cases, totally insufficient to neutralize the injurious effects of respiration in dwellings of a limited capacity. From the foregoing observations we may readily comprehend the deficiencies which are found in the construction of most of our public buildings. With the exception of our theatres—in which the means of ventilation were, in the first place, accidentally established by the opening placed above the chandelier, and adopted for the purpose of carrying off the odour from the lamps—nearly all our public assembly-rooms are badly arranged. Architects are the more blameable in this respect, inasmuch as they ought now-a-days to know the rules which should guide them in the application of ventilation. It is not sufficient to give to man the oxygen which he consumes, but it must be presented to him properly diluted by pure air.

Adopting the foregoing numbers, we may easily calculate the amount of ventilation required in schools, barracks, hospitals, &c. Let us take, as a point of comparison, a bed-chamber, bearing in mind that man requires at least from six to seven cubic metres of air every hour. Assuming that he passes nine hours in his chamber, he would require a space of 63 cubic metres, or a chamber of about twelve feet square—conditions which, with most people, are far from being carried out.

Hitherto we have regarded carbonic acid as the indication by which to measure the hurtful effects of a vitiated air when presented to us in respiration. In fact, its proportion points out to us the amount of already-respired air which may exist in the mixture examined. Still it is very clear, that carbonic acid is not the only injurious product which is met with in vitiated air. We must take into account the incontestable presence of sulphuretted hydrogen, and of those offensive animal matters which the air of inhabited places always contains. It has been observed at one public institution, that the copper wire of a lightning conductor, placed near the mouths of the tubes for conveying away the currents of air vitiated by respiration, is, in a few months, transformed into sulphuret of copper. I have myself seen, in like manner, during a public entertainment, several young and robust firemen, placed in a gallery at the upper part of a large ball-room, so much inconvenienced by the respired air which reached them, that they could scarcely remain there for the space of ten or fifteen minutes. If to the above noxious influences we add the more or less rapid conversion of the carbonate of lead, in the paint of our apartments, into a sulphuret of lead, effected by the action of the sulphuretted hydrogen of the air; the nauseous odour which strikes us on entering, the first thing in the morning, into the dormitory of a badly-ventilated barrack or hospital, or which is found towards evening in workshops where a large number of men have been collected together; we shall no longer be in doubt as to the presence of these injurious matters, as well as to the necessity of speedily getting rid of them.

The necessity of ventilation is, then, incontestable; it must be effected either by chimneys or by gratings, properly arranged, in small apartments, or else by especial apparatus for the use of larger buildings, such as schools, barracks, hospitals, theatres, &c. It is to be hoped that the proper authorities will turn their attention to this important subject of ventilation, more especially as concerns those manufactories in which are

gathered together the working population of our large towns. The absolute requirements of each individual may be summed up in a few words: bread and meat in sufficient quantity, pure air and pure water; such are the aliments which, by maintaining man in health, improve the human race, and consequently keep a proper balance or equilibrium established between the moral and the physical powers. Every physical degradation is speedily accompanied by a corresponding moral debasement; and I know of nothing which can, in this respect, be compared to the effects resulting from a habit of living in places badly ventilated and deprived of light. We have but to cast our eye over the working population of Birmingham, Manchester, Lyons, or Lille, to be convinced of the paramount necessity, political as well as moral, of withdrawing the human race from those physical conditions which carry with them the germ of the most incurable disorders and hereditary affections.

Having proved the existence of the phenomena of combustion in all organized beings, and having likewise shown the general products of this combustion, we will now consider a little more in detail what passes in man and in analogous animals, so far as concerns the renewal of that combustible principle which is being incessantly consumed during their respiration.

It is now nearly seventeen years ago, that, in a course of lectures I then delivered, I expressed myself as follows:—"A man in a state of health expends equivalent to eight ounces of carbon in the day; this quantity corresponds to 20 ounces of aliment of whatever kind. He liberates half an ounce of nitrogen a day, or three ounces of azotized aliments. The system frees itself of carbon and of hydrogen by the lungs, and of nitrogen by the urine. Now, it is evident that these matters are produced from the blood, whatever may be the mode or primary cause of their transformations. The blood is, then, essential to the maintenance of life; it is through it that the principal purification takes place, and consequently it is this fluid that we must seek to renew." These fundamental principles once admitted, the views which I then professed upon digestion, and to which I still adhere, follow as a natural consequence. It is clear that, if a man daily lose eight ounces of the carbon and half an ounce of the nitrogen taken in the aliments, it becomes very difficult to admit that this enormous quantity of waste matter could have been perfectly assimilated, or that this immense and useless labour had been effected in the organism, for nothing: for we must understand by assimilation that function by which the constituent principles are introduced into the organs of the individual. According to the above hypothesis, these principles would make but a momentary stay there, being immediately afterwards eliminated by a vital process for their mere destruction. It appears, then, more probable that the matters daily destroyed for the support of life, in great part at least, merely pass into the blood in an inorganic state. During the process of respiration, a great part of these matters, that is to say, of those carried in the blood, acts as a combustible towards the oxygen drawn into the lungs: so that the work of assimilation, properly so called, takes place most probably on but a small portion of the ingested aliments. There are, then, two ways of viewing digestion: the first is that of which I have just been speaking; the second, adopted by many celebrated physiologists, consists in regarding all the materials which pass into the blood as assimilated to the organism, and subsequently rejected or destroyed little by little. This latter theory does not, to me, appear the most rational.

We shall have occasion to revert more in detail to these questions, when speaking of the sources of animal heat and of the theory of digestion. I wish, at present, merely to give a summary of my views. Thus, I believe that the carbonic acid, the water and the ammonia, given off by man, arise, in great part, from the combustion of those products rendered soluble by digestion, and thence carried into the blood; and not by the



separation of the matter itself of our organs. Digestion has, then, two essential phases: the one is directed towards the reparation of those materials of the blood which are wasted by combustion, and the products of which are thrown off by the pulmonary or the cutaneous respiration; the other, on the contrary, tends to the restitution of those parts of the organism which the exercise of the vital functions has destroyed. In my opinion, the restoration of the materials of the blood is, of these two ends of digestion, that which consumes the greater proportion of the products drawn from our aliments. The proof of this is easily given. In fact, in the aliments of man, starch and sugar are most predominant: now, these are ingredients absolutely unfit for assimilation. But, converted into oxidizable products, soluble in the blood, they are entirely consumed by respiration, properly so called. Assimilation then, in the aliments used by man, is mostly maintained by the neutral azotized, and by the fatty matters; and we shall further see, that a considerable portion even of these products escapes assimilation, and is burned directly in the blood.

We shall find, hereafter, that the blood, in which these phenomena of combustion so evidently take place, and which are so highly characteristic of the animal kingdom, is a very complicated liquid, containing, among other substances:—fibrine, albumen, caseine, gelatine, fatty matters, salts formed by organic acids, and colouring matters.

We shall also discover, in the solids of the economy, all the above substances; and from this fact alone we may draw a conclusion. Suppose, in fact, that the blood loses all its fibrine: unless the animal die, its blood will quickly reform it; and it will, consequently, borrow it, in part, from the already-formed fibrine contained in its organs. Should the blood part with its albumen: it becomes capable of dissolving and appropriating that which it may meet with in other parts of the economy. So, also, with regard to the fatty and colouring matters. Speaking in general terms, the blood should be considered, in relation to the solid materials of the economy, as a saturated solution of the same matters. So soon as it loses any portion of them, it replaces them by drawing on the reservoir offered to it by the entire economy: so that, if the blood be burned without being resupplied by the digestion, the whole economy would, as a consequence, become impoverished; since it is by this process that the blood obtains those materials by which its reparation is effected. The solids of our organs are then burned, not directly, but through the medium of the blood in which they are dissolved. Everything, then, proves that fibrine, albumen, caseine, gluten, and gelatine, being furnished to the blood by digestion, are, in great part, burned there in a direct manner; and the same may be said of the fatty matters presented to it by our aliments. The excess alone of these substances is appropriated to assimilation. As to the neutral vegetable matters, they are wholly consumed, and the excess, if there be any, escapes by the urine.

My former opinions on the subject of digestion have undergone no change. Calculated by decimal quantities, the rations of the French trooper consist of—

	Dry azotised matters.	Dry non-azotised matters.
Fresh meat .....	125 grammes	70 grammes
Camp bread .....	750 )	1066 grs. 64
Soup or broth .....	516 )	596
Leguminous substances..	200	20
Carrots, cabbages, &c....	125	150
	151	716

Now, 154 grammes of dry azotised matters correspond to 22.5 grammes of nitrogen; and 746 grammes of non-azotised matters to 328 grammes of carbon. We may here remark, that no account has been taken of the carrots, cabbages, &c.; these substances contain a large quantity of water, and rather serve to deceive the appetite than to satisfy it. Without entering into more minute details, it will be sufficient to state, that four parts

of fresh meat contain three parts of water. The quantity of water and of gluten in bread is already known. So, also, with regard to the leguminous substances. We may add that meat, the gluten of bread, and the caseine of vegetables contain about 15 per cent. of nitrogen; and that the amylaceous matters contain about 44 per cent. of carbon. We find, according to these calculations, that the soldier eats much more than the 300 grammes of carbon which he expires, and that his daily allowance also contains rather better than 22 grammes of nitrogen.

We shall next proceed to consider what becomes of this nitrogen.

#### SUBSTANCE OF A SURGICAL LECTURE, By Sir BENJAMIN BRODIE.

GENTLEMEN,—I was speaking in my last lecture of the treatment of lateral curvature of the spine, when it exists in a low degree. In the present lecture I shall treat of those cases in which the disease is more advanced. In the early stage it will yield to the treatment I have described; but at an advanced period it will require other measures, which will depend entirely on the degree of curvature and the age of the patient. Thus, if a little girl be brought to you, thirteen or fourteen years of age, you will say she has four or five years more to grow, and it will be well to try milder treatment; if, at the end of the first year, it is found to succeed you may persevere in it, and if it does not, there is time for other methods. If you have to treat this deformity in a girl seventeen years of age, you will consider that in another year she will have done growing, and you must resort to that treatment which is most certain in its results.

A French practitioner of eminence, who has had great experience in these cases, has recommended a method which he has found very efficacious. He never allows the girl to walk about without crutches; these are made very high, so that she can only touch the ground with the tips of her toes, the whole weight of the trunk and lower extremities tending to elongate the spine.

You cannot use crutches of this kind when the muscles of the back are weak: there is an objection to this treatment, as the pressure flattens the ribs on the side.

In cases of slight curvature I do not recommend any mechanical support by stays; but, in cases where the curvature exists in a great degree, you cannot do without some mechanical support. Many different methods have been prescribed; few of them I can recommend. I have found it very efficient, when there is a great degree of curvature, to take the weight of the shoulders from off the spine. You may, if necessary, take off the weight of the head, as well as that of the shoulders; but to this treatment there is the great objection, that the measures necessary to effect this purpose expose the young lady's misfortune to everybody. It is, however, generally sufficient that the weight of the shoulders be taken off. Here is a machine by Mr. Bigg, of Leicester-square: a steel frame is made to fit the pelvis, another piece of steel rises from the posterior part in a line with the sacrum and spinous processes, then another piece of steel with a crutch passes under the axilla. These pieces of steel must be well padded, so as to prevent inconvenience and injury from chafing; the axilla rests in leather straps. This machine takes the weight of the shoulders off very considerably, and may be raised in all directions, so as to be accommodated to the requirements of the patient. With this machine on, a girl may walk about; but you will not suppose that this is to supersede those other measures which I mentioned in my last lecture. It will be better that she lie down a great part of the day; she must not give up those gymnastic exercises which I then spoke of, and I generally recommend that the machine be taken off two or three hours in the middle of the day. The rule in these cases must be to order the patient to take exercise and to lie down al-

ternately, as I have before mentioned. But in more confirmed cases of curvature, where the ribs bulge out on one side, this treatment will not be sufficient. You must then resort to pressure on the ribs; and in such cases I use the machine which I now exhibit, invented by Mr. Shaw; it is made of steel, very light, and not cumbrous. The frame is fixed to the pelvis, braced very firmly, and the pressure is equally diffused; on each side there is a crutch of steel extending upwards, and supporting the axilla, and so far the machine takes the weight of the shoulders off the spine; but there is, besides, an upright piece of steel behind, to which the other part is fixed, and by means of which pressure is made on the ribs on one side.

The ribs generally bulge out on the right side, and the strap makes pressure on that side. After a time the patient will cease to feel any inconvenience from wearing the instrument. In the use of this machine, however, you must not neglect those other modes of treatment that I have mentioned: she must have exercise, fresh air, and about the middle of the day take off the machine and use gymnastic exercises, such as the pulley, by means of a rope (having a weight attached to it) running through two blocks, one fixed to the ceiling and one to the ground; and others I have named. This machine must be taken off at bedtime, just before retiring to rest. In such a case, if you trust merely to the effects of the machine, the muscles of the back will not be sufficiently called into action; but, by the exercises I have recommended in the middle of the day, you will strengthen the muscles very materially. Shampooing will be beneficial; the patient should live in the country, and take steel medicines. Machines, properly made and properly adjusted, at any rate prevent the increase of the deformity. If the use of this machine be adhered to, the curvature will never get worse, but in most cases there is considerable improvement. Methods have been put before the profession by which exercise may be taken another way. Beds have been invented by which pressure may be made on the projecting ribs, and keep the spine elongated. One great objection is, that they are very miserable to the patient; and I think that all treatment should be as little irksome as possible. This may be continued for two or three months, but, nevertheless, the treatment in other respects must be as with the other instrument. You must not suppose that, in these bad cases, you can ever get the spine just as it ought to be; in bad cases you cannot restore the proper straightness. I showed you, in the last lecture, how this is prevented by a deposition of bone along the bodies of the vertebræ, to strengthen them, and thereby producing ankylosis. If curvature remain when the machine is left off, support should still be maintained in some other way, as by a bone in the stays.

I now call your attention to some other kinds of curvatures of the spine existing without caries. You will sometimes find young persons are round-shouldered, with great curvature of the upper part of spine. When the head is pushed forwards, the shoulders are elevated, to keep up the centre of gravity, and consequently there is curvature of cervical and dorsal vertebræ. You find a girl with her neck thrown backwards, and there is convexity of shoulder.

It is more common in boys than in girls, from the habit of stooping, which will alter the shape of the vertebræ. Old persons, from continued stooping, become round-shouldered, and there is produced the hoop-like curvature.

Dr. Potts showed me a preparation which he bought in Paris, taken from a patient who died in a madhouse: there was a hoop-like curvature of the spine, but no caries. It was observed that he sat for a year in this madhouse in one posture, stooping forwards, and the bones had become deprived of earthy matter, and thus altered in shape. Continued stooping, of course, in time produces this hoop-like curvature.

However, this curvature forwards is to be dis-



tinguished from that which takes place, forwards, as the result of caries. In caries it is a sharp projection, a distinct angle; in that of which we have been speaking there is a hoop-like curvature. The only case of curvature of the spine which you will be likely to confound it with, is that which exists in the lower cervical and upper dorsal vertebræ, and here you find the neck bent forwards; but when you examine the patient, you find the neck sunk down between the shoulders, and you feel the angular projection very distinctly. When this hoop-like curvature forwards is the result of natural conformation you cannot help help it, it is natural and must remain; but, when the result of bad habit, you may in young persons, to a great extent, find a remedy for it. When you see it coming on you may tell her parents to place a book upon her head and let her walk about with it, balancing it on the crown. This will increase the power of the muscles of the back, and will, perhaps, be sufficient to prevent the apprehended deformity. This mode of treating spinal curvature was introduced by Mr. Grant, of Bath, for a different kind of distortion, and in that case it was a very useful proceeding; its usefulness, however, is not limited to cases of that kind. You must not, however, use too heavy a book for this purpose; weight is not the object, and you must place it so as it may easily tumble off. I have heard it recommended to put sandbags on the head, and that their chief merit was, that they do not easily tumble off; but it is this very circumstance that better fits the book for this purpose. This plan persisted in for a few years will much rectify the distortion.

I will take this opportunity to describe a case which might puzzle you at first. When a woman gets advanced in life, the muscles of the back become weaker, and she gets into the habit of stooping; at the same time a little more fat is deposited, and the spinous processes of the inferior part of the neck appear unusually prominent. This looks like spinal curvature. I have known it taken for spinal disease, and treated with caustic issues. I have known even a still more absurd mistake—it was taken for a tumour!

A lady called on me. She had had several children, was fat, and her neck presented the appearance I have described. I advised her to leave it alone. She afterwards travelled abroad with her husband, and some one whom she consulted, but who did not know much of such cases, told her it was a tumour, and advised her to return home.

I knew another case, in which a surgeon actually recommended an operation to be performed to remove this imaginary tumour, when it was nothing more than this projection of the spine. I have merely mentioned these cases that you may be on your guard, so as not to be led away by the appearance of this projection.

There is another curvature you will sometimes meet with, differing in its nature from those already described: for instance, a young gentleman, while playing, suddenly twisted his neck; he felt great pain in the side of his neck, and violent inflammation followed; he was treated with leeches, purgatives, and so on; and after a time the inflammation was subdued. But when he recovered, the neck was twisted, the cheek lying near the shoulder; in this state he was brought home, and on examining the neck I found on the side a projection of bone. I at first thought it was dislocation of vertebræ, but there was no paralysis, as in ordinary cases of dislocation of vertebræ. I satisfied myself there was no other displacement, and thought that the projection was the transverse process of the atlas, made more prominent by the position of the neck, and the wasting of the muscles, which had been long out of use. By means of vapour-baths, having the parts shampooed, and living in the country, his neck gradually returned to its natural form, and in two years he had almost recovered.

I was consulted concerning a young lady, under similar circumstances, only it was not brought on by accident, but was a glandular enlargement on

one side of the neck. When I was called in, the patient was suffering violent pain on one side, and the cheek was lying near the shoulder. I was consulted earlier than in the former case. There is, in these cases, most likely, inflammation of the muscles and ligaments of the spine. This patient was treated with mercury, purgatives, diaphoretics, &c., and with vapour-baths, and the neck was got nearly straight.

I have seen several cases of this kind of curvature of the neck, and in the great majority of instances they occurred as the sequence of some other disease: for instance, a man has rheumatic fever, and on recovery has a wry-neck—twisted on one side. I have also seen it as the sequence of scarlet fever. I told you in a former lecture that one part of the body cannot be altered in figure and the other not thrown out of shape also. The kind of curvature of which we are speaking is followed by lateral curvature of the whole spine. If you find one shoulder lower than the other, the figure of the spine will be that of the letter S. If this curvature be not removed by art, it is curious that the face, after a time, partakes of this disfigurement. A young lady, whose spine was curved and neck projecting in the manner described, had one cheek drawn lower than the other, and the eye was drawn with it, and in this case to a great degree. In different cases the disfigurements vary.

Now, suppose you were called in to a case of this kind in the early stage, while inflammation was going on, you would look upon it as a case of inflammation of the ligaments of the spine; and, if the patient be in a condition to bear loss of blood, you take it from the arm, or apply leeches, or put the patient under a course of mercury: this latter is more beneficial in this case than in any other; diuretics and diaphoretics must be had recourse to, also purgatives. But you will likewise have the patient brought to you when inflammation has subsided, but curvature exists: then the vapour-bath and shampooing must be employed, and certain exercises will be used with benefit for drawing the spine into a proper position; you will also apply the machine to the head, which will assist the neck to get straight. This machine must be fixed on the pelvis, and a piece of steel should rise behind as high as the occiput, and in front as high as the chin. The instrument has a branch on each side, and by means of these, properly adjusted, the spine will be brought pretty straight. When you are consulted early you can generally get it tolerably straight, but not quite so, and the probability will depend on the length of time that has elapsed.

I am not going to make any observations on caries, but will just point out a few particulars by which you may be prevented from mistaking the diagnosis. Curvature from caries arises from bodies of vertebræ being eaten away, and the vertebræ falling forward, causing the spinous processes to project upwards, and therefore the form is always angular; but in that which is independent of caries, as that which is observed in old age, rickets, or bad habit, it is always hoop-like. The only angular curvature which you will be likely to confound this with, is when the disease is in the lower cervical or dorsal vertebræ.

Sometimes, in cases of caries, you will find curvature going on without pain, paralysis, or other disturbance, and you might not think that there was caries, but that you could get the spine straight by exercise.

I was consulted about a little boy, who was suffering in this way; a very excellent surgeon was attending him; there were no symptoms of angular curvature, and the surgeon said that he could not think that there was mischief of such a description, and ordered him gymnastic exercises. I advised a different treatment. After a time, the little boy was brought to me for assistance for a tumour of the belly, which proved to be a case of caries of the dorsal vertebræ. I saw another case, where a little boy had been practising gymnastic exercises for a curvature of the spine, which, like the other, proved, on the *post-mortem*, to be the

result of extensive caries. Sometimes there are other symptoms of caries, and which we generally have, as paralysis, pain, and wasting of the muscles; but in other cases all these symptoms are wanting, and you must make your diagnosis according to the angular displacement; this, nothing but the destruction of the bodies of the vertebræ can explain. I speak particularly of these cases now, because in your ordinary hospital course you have not an opportunity of learning much about them. They are worthy of notice for this reason, they are peculiarly cases for quackery, no disease so much so. I knew of one who pretended great ability to cure these cases; he pretended they were dislocations, and he went about with a hammer to drive the bones in their place; and so successful was he in imposing on the credulity of his patients, as to get five or six hundred pounds for one case; where, in reality, a visit once a month, or once in two or three months, was all that was necessary. The usual time has not expired; but we will prefer entering on the next subject in another lecture.

## ORIGINAL CONTRIBUTIONS.

### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 220.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

There have been several noted cases in which it was found almost impossible to prove a person insane; and this extreme difficulty of proof almost of itself suggests the impropriety of interfering with those who possess so much self-control.

Lord Erskine mentions a case where he had wasted the whole day in endeavouring to prove a person's lunacy; he was at length supplied by Dr. Sims with the talisman, when, on his affecting to be grieved at having so ignorantly examined a person of such high and holy dignity as "the Saviour of the world," the lunatic forgave him and said most emphatically, "I am the Christ." In this case the unfortunate gentleman had given a most affecting history of his sufferings, and had been previously regarded by the whole court as a victim to the most unwarrantable oppression. That he was hallucinated, he himself proved by word of mouth; but I consider he was as much entitled to sympathy after his unguarded expression, as he was before it. It is more than probable that the sufferings he detailed were strictly true, and the fact of his being hallucinated upon one point did not, consequently, necessarily invalidate his opinions or statements upon other points. But it unfortunately happens that, because a person has been proved to hold delusion or hallucination, every complaint he may make respecting his sufferings or ill treatment is *said* to be a part of his error.

A somewhat similar difficulty occurred before Lord Mansfield, in a case where Dr. Munro was indicted for keeping a Mr. Ward in confinement. This gentleman was also unsuccessfully examined at great length, and ably sustained it; but Dr. Battie then asked him, what had become of the Princess with whom he corresponded in cherry juice?—this being the point of hallucination. Mr. Ward immediately justified the pretended correspondence by deception and falsehood. He said he had been imprisoned in a high tower, and, having no ink, was obliged to correspond with the Princess in cherry juice; that he then threw the letter into the moat which surrounded the tower, whence it was wafted by the eddy, and was finally picked up by a boat. Now, this gentleman was not imprisoned in a tower, nor had he ever written in cherry juice. Lord Mansfield immediately ordered Dr. Munro to be acquitted. Dr. Munro was, however, again subsequently indicted in the city of London; and Mr. Ward, having previously exposed his insanity by speaking of the Princess, now most successfully resisted every endeavour which was made to get him to answer any questions on this topic; and it



was only by the evidence of the shorthand writer who had taken down the report at the Westminster trial, that his hallucination could be proved against him.

A similar difficulty occurred in Edinburgh, where it had been impossible to detect the hallucination, until a gentleman, who knew the point, asked, what were the latest accounts from the planet Saturn? when the lunacy was immediately considered proved.

To show, however, on the other hand, how much error may arise in a decision on these cases, it may be advisable to refer to an example afforded by Dr. Abercrombie, of a clergyman in Scotland who was considered incapable of managing his own affairs. He was brought before a jury, and, amongst other extravagant acts, it was mentioned that he had burnt this library. When asked to account for such conduct, he said—"In the early part of my life I had imbibed a liking for a most unprofitable study, namely, controversial divinity; on reviewing my library, I found a great part of it to consist of books of this description, and I was so anxious that my family should not be led to follow the same pursuit, that I determined to burn the whole." To other questions he returned equally plausible answers, and the jury saw no reason to restrain him. In a fortnight from that time he was in a decided state of mania.

Now, this man's premises were sound with regard to the unprofitable nature of controversial divinity, but, in accomplishing his purpose by burning his whole library, he evidenced his irrationality; had he merely destroyed the immoral works and sold the controversial, this would have been the act of a sound mind.

It is of great importance, in examining a supposed lunatic, to appear to believe everything he says; to be interested, and not to consider anything ridiculous; never to contradict him, and especially upon the insane point. It is extraordinary how consummate is the address with which some lunatics conceal their delusion, or mask their weakness; this applies, in some instances, to every form of insanity; and in criminal cases it has often been found that lunatics will cringe and fawn and flatter their keepers for weeks, and then on the very first opportunity they murder their victim.

Medical men should never enter court as partisans: their object should be to establish truth. When examining a patient, take care he is not agitated, gain his confidence, and endeavour to ascertain that he has not been previously excited. Kindness will do more than subtlety or deceit; by it the violent will often become placid, and those who are habitually morose may even detail their griefs, instead of maintaining their taciturnity.

It is very important to ascertain the exact state of the pulse and the various functions, to observe whether the patient is excited, and whether any ill treatment has been practised or threatened. The most monstrous means are sometimes adopted to intimidate a weak-minded individual: conspiracy, intimidation, and fraud must be met by perspicacious sagacity, by an encouraging and protective kindness, and by the most unflinching and uncompromising honesty and honour. A case has been mentioned where an alleged lunatic was brought before the Commissioners under an artificial state of excitement. On his first examination he was rational; in the interval between this and his second examination he was allowed to drink ale, spirits, and bottled porter, and, was then produced. His altered demeanour at once convinced the jury, ignorant of his potations, that he was lunatic, and a verdict was found accordingly. One of the Commissioners, however, was subsequently informed of the circumstances, laid the case before the Lord Chancellor, who immediately quashed the Commission.—*Paris and Fonb. Med. Jur.*, p. 294.

There was great contrariety of medical opinion in a case which occurred recently in Dublin, in *re Carpenter, de lunatico inquirendo*. It appeared the alleged lunatic believed his wife's family conspired to deprive him of his property, and that he had threatened several persons, when under irritation in consequence of being confined. One physician considered he was sane on all other points except the management of his wife's property, and Dr.

Graves certified, while Mr. Carpenter was under confinement, that he considered him of sound mind; and when before the Commission Dr. Graves said, "My opinion is, that there are many men more mad, walking about attending to their business, and in this Court perhaps." Mr. Carpenter was, however, by a jury found of unsound mind.—*Dub. Med. Press.*, vol. 14, p. 47. 1845.

To ascertain a person's capacity after his death is doubly difficult, as all then must depend upon the opinions of witnesses; and the contrariety of opinion so often manifested as to the state of mind of an individual, even while living, is by no means diminished when the alleged lunatic is dead, and perhaps, in some cases, even has been so for years. Where wills have been contested, and an endeavour made to set them aside, by evidence adduced subsequently to a testator's death, there may be great dread of fraud and perjury, as was instanced in *Lowe v. Jolliffe*, where three subscribing witnesses to a will were convicted of perjury.—1 *Sir W. Bl. Rep.*, p. 365.

Evidence showing that insanity has prevailed in other members of the family is not admissible in civil cases; and there can be no doubt that it would be unjust to infer that a descendant must necessarily become insane because his father or mother, or the collateral branches of his family, were so afflicted; and it is at once evident how very great would be the prejudice arising from such evidence, when medical men all but unanimously acknowledge the constant hereditary transmission of this affection. The legal course is to confine the evidence to the actions and state of mind of the party whose sanity is questioned. It would be also injudicious and unjust to try the state of any man's mind by recorded opinions: every case must stand upon its individual facts, with reference to the present and the past; and evidence ought only to be received as to what has occurred in the individual under examination, and not as to what may happen hereafter.

In criminal cases, however, as will be hereafter shown, the evidence of the predisposition to insanity through hereditary transmission has been admitted, subject to its being proved by the testimony of medical men, that insanity is hereditary.

As age advances, persons often grow into imbecility, and, losing their powers of comparing and judging, and their memory having failed, they become quite childish, there being a decay of the mental as well as of the physical powers.

Although many very aged persons are found still retaining considerable intelligence, yet it is by no means unfrequent to see them perfectly imbecile, and holding the most absurd notions. We have read of an old man who even told his family he was dead, and felt surprised the shutters were not in consequence closed, and would ask for one pinch more out of a favourite snuff-box, before he was finally screwed down.

Age of itself does not disqualify a testator from making his will; even persons a hundred years old have possessed their intellectual faculties to a very remarkable degree. The minds of some men are more exhausted at fifty than those of others at eighty, ninety, or even a hundred. We will not allude to the extraordinary case of old Parr, but may state that the *Univers* lately announced the death of Jean Joseph Dinsart, in Belgium, at the age of one hundred and six years, all but two months. He possessed his intellectual faculties to the last, read without spectacles, kept his own accounts most accurately, wrote with a firm hand, and in fine weather took regular exercise.

We often see old gentlemen whose memory, as far as regards present occurrences, is gone; they forget the names of the most ordinary things, and mix up the affairs of the past century with those of the present. In such cases it is not unusual to find them alter in disposition; they become morose and snappish, are constantly finding fault with their children, and often regard them as bitter enemies; and, under such a prejudiced and unprovoked irritation, they often make most unjust alterations in their wills, leaving their property in a way which no reasonable man could justify. It is not unusual to find such a person making a most imprudent marriage, perhaps, when near eighty years of age,

forming an alliance with a girl younger than his granddaughters: he dies within a short time, and this young widow, who was, perhaps, unknown to the family twelve months before, is left sole heiress, and the long-cherished expectations of the children are at once blighted.

When an old man is afflicted with palsy, how often we see him alternately in passion or in tears, unsubdued by the kindness of his wife, threatening his children, and petting and spoiling his favourite valet. In addition to paralysis or palsy there may, however, be other disqualifying causes, such as apoplexy, epilepsy, or typhus fever.

Persons often delay making their wills, until informed by their physician that there is little hope of life, or that great danger exists; no will should, however, be considered valid, if made during the delirium of fever.

Lord Chancellor Erskine says—"Why should not a man be entitled to protection in a second state of infancy as well as the first?" How often, after a life of eminent service to the country, has the most brilliant talent dwindled into imbecility or foolishness; very often, indeed, the higher the amount of mental capacity, and the greater the demands made upon it, so is there a more rapid or a more complete prostration of mental vigour.

And his Lordship thought that a special act of Parliament should be passed to protect elderly persons who become imbecile, thinking a person should be protected in the second infancy as well as the first; and added, "that it falls to the King to take care of those who cannot take care of themselves." And amongst others the names of Lord Somers, the Duke of Marlborough, Dean Swift, and Lord Mansfield, have been adduced to show how such illustrious men, of such transcendent talent, have towards the close of life been fit subjects for such a Commission.—*Shelford*, p. 88, sec. 2. *Mad. chap.* 732.

In a case where a petition was presented, praying for a Commission, in *re Langley*, the application was not against the party as a lunatic, but as one who from old age was supposed to be incapable of managing his affairs. Lord Eldon directed the affidavits to be laid before two eminent physicians to report, not as to the lunacy or idiocy of the party, but as to his power of protecting himself and his property. On their representation, the petition was dismissed, but the costs were allowed, as the application was thought to have been proper and justifiable.

It is extraordinary to observe the difference age seems to effect on various individuals: while some at eighty and ninety appear to comprehend everything mentioned to them, others seem lost in a maze and bewildered even on being told of the passing topics of the day.

The *weakness of mind*, which is almost necessarily found in old age, forms no justification for confining such a person; and, even where an old man indulges in whims and delusions, relations are not justified in sending him to a madhouse, where he must either pine away his remaining hours in solitude, or else mix with madmen, probably even his very imbecility and helplessness affording sport for those possessing more physical vigour. But there can be no doubt that, while it is unjust and cruel to confine such a person in an asylum, still power should be invested in some high functionary of the State, to restrict such an individual from making testamentary dispositions.

At present there is no way of restraining the mischievous effects of imbecile caprice, which sometimes exists to such a degree as to be called *senile insanity*. Such a person is often able to answer questions, especially when roused by the presence of strangers, but still he may mistake the motives of his children, and cut them off in his will; he may forget everything about the present, and confound things long since past with those which now exist; he may not even remember the names of his own children, mistaking one for another; he may know nothing about his property, may be robbed by his servants, and may in other ways act with great inattention or indiscretion, and yet the presence of a Commission for the time rouses him, and he answers questions well, though rarely he converses voluntarily; but, as soon as the control exercised by



strangers is removed, he again lapses into imbecility, exhibits moroseness, peevishness, and want of self-control, and, though the Commission may have relieved him from collateral guidance, he may get into most absurd and wicked and indiscreet scrapes, or may even commit suicide. In every action and wish he forms a complete contrast to his previous habits and character; a perfect metamorphosis or *change* has more or less gradually occurred; he is no longer the same man.

Now, such a person requires some restraint, but not confinement; a judicious butler may be often sufficient to check any indiscretion, but the distribution of property should never be left to the disposition of caprice, of whim, of imbecility; and, while a jury should decide as to the *degree* of incapacity necessitating interference, the medical man should properly direct the *degree* of necessary restraint.

Idiots, lunatics, and those of unsound mind are incapable of making wills, and if made by such persons they are not valid; but if a rational will is dictated by a person, even though generally supposed to be an idiot, this is considered to afford strong evidence that he is not idiotic.

Proofs of partial insanity will defeat a will, as in the case of Mr. Greenwood, who laboured under the delusion that his brother had given him a potion to destroy him, he therefore disinherited this brother; the fact being, that when in delirium from fever he had received some medicine from his brother's hand. Mr. Greenwood permanently retained the delusion he had assumed in delirium, and a verdict against the will was obtained in the Court of Common Pleas. On a second trial, by advice of the Judge, the jury, however, found in favour of the will. A compromise was subsequently effected.

A person having written a testamentary paper when in sound mind, and subsequently becoming insane, although he may not have signed such a will, yet it is considered valid, because the supervening insanity is held to be sufficient to account for the non-execution of such a paper.

The act of suicide three days after instructions had been given for a will did not invalidate it, there being no evidence of the insanity of the deceased at or during the time of giving the instructions.

In some cases of habitual intemperance the mental powers become much enfeebled, so as to impair the judgment and prevent the individual from thinking or reasoning correctly upon any question. In other instances, the reason is only affected when under the influence of inebriety. Of course any will made when a man is actually drunk, if this be proved, would necessarily be held invalid; but should the habitual drunkard be considered fit or capable of such testamentary right? If he be constantly intoxicated he must be incapable; but if locked up, in some instances, the right might be generally, but not always, safely accorded to him.

In England there is no power to interfere in these drunken cases, but in the State of New York, such a person's property is placed under the care of the Chancellor, and, should the drunkard feel aggrieved, the circumstances are referred to the opinion of six freeholders, and the case is decided by their verdict. Could not such a law be with advantage introduced into this country?

With respect to drunkenness invalidating a will, if a will be made and signed in a state of inebriety, it is invalid, but as soon as the excitement has passed away, and sober reason returns, it may be executed.

If a man become from age so imbecile that he cannot remember his own name, he cannot make a will; nor can a drunkard, if by habitual intemperance he be deprived of the use of his understanding and reason; but, if when sober, reason returns, he can then dispose of his property.

All persons, but especially medical men, should be aware that any one who attests a will should have some knowledge of the testator, as one who signs his name as witness to a will, certifies by that act that he considered the testator of sound mind. A will, however, may be valid though both the attesting witnesses depose to the incapacity of the deceased.—*Le Breton v. Fletcher*, 2 Hagg. Ec. Rep., 568. And a will may be established even

against the evidence of all the subscribing witnesses.—*Low v. Jolliffe*, 1 Sir W. Bl. Rep., 365.

It is impossible, and it would be also unnecessary, for me here to enter into the various points upon which a will may be disputed, and I shall merely content myself with stating, that several wills have been set aside where the testator was not proved to have been insane, but where the persons principally benefited had been comparative strangers; or, what is worse, had even in some instances stood in the relation to each other of client and attorney.

The following case, which came under the notice of Sir Henry Halford, is, in many respects, so instructive, that I consider no apology necessary for giving it in somewhat lengthy detail.

A gentleman of considerable fortune, in Oxfordshire, about thirty-five years of age, sent for his solicitor to make his will. He was in habits of strict friendship with him, and stated that he wished to add £500 a year to his mother's jointure, if she got well, she being then, to the knowledge of the solicitor and himself only, confined as a lunatic; he wished, also, to make a provision for two natural children; to leave a few trifling legacies; and then, if he died childless, to make him, the solicitor, his heir. His friend expressed his gratitude, but added, that he could not accept such a mark of his good opinion, until he was convinced that it was his deliberate judgment so to dispose of his property, and that decision communicated to him six months afterwards.

In about six weeks time, the gentleman became deranged, and continued in such a state of excitement for a whole month, during which time he was visited constantly by Sir Henry Halford and Sir George Tuthill, as to require coercion every day. [The non-restraint system had not then been considered practicable, or I am convinced the late excellent Sir Henry Halford would have been among the first to have exercised and advocated so philanthropic and so humane a change.]

At the expiration of a month he was composed and comfortable; but his languor and weakness bore a proportion to his late excitement, and it was very doubtful whether he would live. On entering his room one day, on Sir Henry asking him how he found himself? he answered, "Very ill, Sir; about to die, and only anxious to make my will first." This could hardly be listened to under his circumstances, and he was persuaded to forego that wish for the present. The next day he made the same answer to the same question, but in such a tone and manner as to extort from common humanity, even at the probable expense of future litigation, an acquiescence in his wish to disburden his mind. The solicitor was sent for, and, having been with his client the preceding evening, met Sir Henry Halford and Sir George Tuthill at the consultation in the morning, with a will prepared according to the instructions he had received before the attack of disease, as well as to those given the preceding night. He proposed to read this to the gentleman in the presence of the physicians, and that they should witness the signature of it, if they were satisfied that it expressed clearly his intentions. It was read, and the patient answered, "Yes," "yes," "yes," distinctly to every item, as it was deliberately proposed to him. On going down stairs with Sir George Tuthill and the solicitor, to consider what was to be done, Sir Henry expressed some regret that Sir George Tuthill and himself had, as physicians, been involved in an affair which could hardly be expected to terminate without an inquiry in a court of law, where they would necessarily be called upon to justify themselves for permitting this good gentleman, under such circumstances, to make a will. It occurred to Sir Henry then to propose to his colleague to go up again into the sick-room to see whether their patient could re-word the matter, as a test, on Shakspeare's authority, of his soundness of mind.

"Ecstasy!

My pulse as yours doth temperately keep time,  
And makes as healthful music. It is not madness  
That I have utter'd: bring me to the test,  
And I the matter will re-word which madness  
Would gambol from."—*Hamlet*, Act III., Scene 4.

He repeated the clauses which contained the addition to his mother's jointure, and which made

provision for the natural children, with sufficient correctness; but he stated that he had left a name-sake, though not a relation, ten thousand pounds, whereas he had left him five thousand pounds only, and there he paused. After which, Sir Henry thought it proper to ask him, to whom he had left his real property, when these legacies should have been discharged; in whom did he intend that his estate should be vested after his death, if he died without children? "In the heir-at-law, to be sure," was the reply. Who is your heir-at-law? "I do not know," was the answer.

Thus he "gambolled" from the matter, and laboured, according to Shakspeare's test, under his madness still. This gentleman died intestate of course; and the conduct of his solicitor, who was also his friend, was throughout strictly honourable. (To be continued.)

## FIRST NOTICE.

We have received with this contribution the following letter:—

[To the Editor of the Medical Times.]

SIR,—A new edition of Baron Liebig's work on Animal Chemistry is announced for publication, and the first part has made its appearance. You will agree with me in saying, it is of the utmost importance that every theory upon this subject ought to be carefully examined. With a view to this end, I send you herewith a paper on this distinguished writer's views on the sources of animal heat. Should it be suitable to the columns of the *Medical Times*, I have several other papers upon his theories on animal chemistry which I shall send you, after I have adapted them to the new edition of his work.

I am, Sir, your obedient servant,

ROBERT RIGG.

Greenford, Middlesex, Dec., 1846.

## OBSERVATIONS AND EXPERIMENTS ON THE SOURCES OF ANIMAL HEAT:

*Showing, in Opposition to the Theory of Baron Liebig, that there must be some other Source or Sources of Animal Heat, besides the Process of Combustion.*

By ROBERT RIGG, F.R.S.

The generation of animal heat is so important a feature in the economy of animal life, and seems to be so intimately connected with the principle of life itself, that it has long engrossed the attention of chemists and physiologists.

They have approached the subject with very different views, and have called to their aid chemistry, electro-chemistry, and mechanics; but, even with these powerful auxiliaries, their research and ingenuity have been baffled, and, though differing widely in their general conclusions on the subject, they have all agreed in this, that the production of animal heat is the most recondite of all the functions.

A solution of this problem has, however, of late been put forward on high authority; and we are told that "the mutual action between the elements of the food and the oxygen conveyed by the circulation of the blood to every part of the body, is the SOURCE OF ANIMAL HEAT"; (a) and at page 35 we are told that "the heat evolved in the process of combustion, to which the food is subjected in the body, is amply sufficient to explain the constant temperature of the body, as well as the evaporation from the skin and lungs."

This theory is sanctioned by the name of Liebig, a name entitled to great respect; but Science is not a province of Faith, and the greatest name can only claim for its theory a stricter scrutiny and closer investigation. It is through the ordeal of experiment alone that the most ingenious theory can take its place amongst the acknowledged principles of natural philosophy.

To this ordeal Baron Liebig seems ready to

(a) Liebig's Animal Chemistry, second edition page 17.



submit; and in a paper read before a society of physicians at Darmstadt, and which will be found in the "Lancet" of Feb. 22, 1845, he has endeavoured to show that his views of the matter are supported by the result of experiment, and by well-established facts. In order to this, he does not bring forward experiments of his own, but boldly takes up the experiments and calculations of Dulong and Despretz, which have generally been regarded, and were regarded by these gentlemen themselves, as establishing the contrary doctrine: namely, that there must exist some other source of heat in the animal organism, which lends its aid to the inspired oxygen in maintaining the temperature of the living body. For the experiments and calculations of Dulong and Despretz show that the animal body evolves from one-tenth to one-fifth more caloric than it ought to do, assuming that the combination of the oxygen with certain constituents of the body (forming carbonic acid and water) is the exclusive source of liberated heat. Whence it would follow that the simple combustion of these bodies is of itself insufficient, and is in some way aided by the animal organism in maintaining the temperature of animal bodies.

Baron Liebig enters with great acuteness into a critical examination of these experiments and calculations. He scrutinizes their data and their figures. He shows that some data, assumed on the authority of Lavoisier and Laplace, are to a certain degree erroneous, and that certain figures need correction; and then, after craving allowance for "possible errors of observation," he produces a corrected calculation, with the results of which he expresses his satisfaction in the following terms:—"These figures need no comment; they prove, with unquestionable certainty, that an animal placed in an appropriate apparatus evolves in a given definite space of time exactly as much heat as the same apparatus would have received had the oxygen inspired during the same space of time been combined directly in the apparatus with a certain definite proportion of carbon sufficient to form an amount of carbonic acid exactly corresponding to that exhaled in the same space of time, and with a certain definite proportion of hydrogen sufficient to form an amount of water exactly corresponding to that which we assume to be formed in the organism by that portion of the inspired oxygen which does not form carbonic acid. And thus the question, whence the heat of the animal body proceeds, is fully answered."

In this manner has the Baron, with admirable address, wrested the weapons from the hands of his opponents, fought a manful battle, claimed a victory, and taken up his position on the enemy's ground. (a)

Now, it is not my purpose to defend the calculations of Dulong and Despretz, or to call in question the corrected calculations of Liebig. I am willing to give him the full benefit of that calculation, and even, for the present, grant his immediate conclusions: that the amount of heat evolved by the combustion of an animal compound is equal to, or not larger than, the amount of heat evolved by the oxidation of the combustible constituents of this compound. But whether this first conclusion affirms or disaffirms the further and more general conclusion, namely,

(a) The combustion heat of one gramme of carbon and hydrogen was calculated by Dulong at—carbon 7237° (a), hydrogen 21375°; and by Despretz—carbon 7815°, hydrogen 23640°. Liebig makes it appear that the data upon which these figures were fixed are erroneous, and substitutes for the combustion heat of carbon 8558°, and for that of hydrogen 34792°, which, he says, are unquestionably far more correct and precise than those upon which Dulong and Despretz originally based their calculations. He places the results obtained by these chemists, who experimented upon different animals, the calculations according to their figures, and those figures adopted by himself,

(a) The heat in this note is represented according to the centigrade scale.

that this combustion is the only source of animal heat, depends upon another question, namely, whether the heat evolved by an animal is all the heat that is required by, or produced in, the animal economy. For, if Liebig's first conclusion be true, that the heat evolved by the animal compound is just about equal to the heat which the constituents of the compound would yield in direct combustion; and, if it should further appear that the animal functions require and

in juxtaposition, as shown in the two following tables:—

TABLE I.  
DESPRETZ (b).

Amount of heat evolved by the animal in a given definite space of time.	Amount of heat produced by the conversion of the oxygen inspired during the same space of time into carbonic acid and water.	
	According to Despretz's calculation.	According to Liebig's corrected calculation.
	C. 7851 H. 23610	C. 8558 H. 34792
	car. hy.	
1. Rabbit ...	100 68.5 + 21.9 = 90.4	107.48
2. Do. ..	100 64.9 + 20.9 = 85.8	101.74
3. 6 young rabbits	100 58.5 + 23.6 = 82.1	98.71
4. Rabbit ..	100 68.3 + 18.4 = 86.7	101.78
5. Guinea-pig	100 69.4 + 19.4 = 88.8	104.45
6. Do. ..	100 69.6 + 19.3 = 88.9	104.53
7. Dog ..	100 54.9 + 25.9 = 80.8	98.16
8. Do. ..	100 49.6 + 24.5 = 74.1	90.31
9. Young dog	100 48.5 + 28.6 = 77.1	91.30
10. Cat ..	100 57.7 + 22.9 = 80.6	96.81
11. Pigeon ..	100 60.5 + 18.3 = 78.8	93.10
12. Dog ..	100 58.3 + 20.9 = 79.2	94.52
13. Cock ..	100 60.5 + 19.2 = 79.7	94.43
14. Virginia cock	100 47.4 + 29.6 = 77.0	95.41
15. Owl ..	100 56.3 + 18.3 = 74.6	88.50
16. Magpie ..	100 57.6 + 17.8 = 75.4	89.20

(b) "Annales de Chimie et de Physique," xxvi., page 337.

TABLE II.

DULONG (c).

Amount of heat evolved by the animal in a given definite space of time.	Amount of heat produced by the conversion of the oxygen inspired during the same space of time into carbonic acid and water.	
	According to Dulong's calculation.	According to Liebig's corrected calculation.
	C. 7237 H. 21375	C. 8558 H. 34792
	car. hy.	
1. Cat ..	100 53.5 + 19.4 = 72.9	94.9
2. Do. ..	100 49.2 + 19.6 = 68.8	90.1
3. Do. ..	100 55.1 + 16.4 = 71.5	91.7
4. Do. ..	100 55.4 + 20.4 = 75.8	98.6
5. Do. ..	100 54.0 + 19.6 = 73.6	95.7
6. Dog ..	100 53.2 + 19.6 = 72.8	94.6
7. Do. ..	100 55.4 + 24.8 = 80.2	104.7
8. Do. ..	100 57.0 + 22.2 = 79.2	103.0
9. Windhover	100 49.3 + 22.2 = 71.5	97.2
10. Do. ..	100 54.5 + 24.4 = 78.9	104.1
11. Guinea-pig	100 65.7 + 3.7 = 69.4	83.6
12. Do., young	100 70.8 + 4.1 = 74.9	90.2
13. Do., do.	100 67.2 + 12.8 = 80.0	95.5
14. Rabbit ..	100 71.0 + 4.5 = 75.5	91.1
15. Do., young	100 75.6 + 7.7 = 83.3	101.8
16. Do., do.	100 68.1 + 6.4 = 74.5	95.4
17. Pigeon ..	100 72.4 + 6.3 = 78.7	95.9

(c) "Annales de Chimie et de Physique," 3 série, tome i., page 455.

employ a larger quantity of heat which is not evolved, but which becomes latent; then it follows that such further quantity of heat must arise from some other source, and that the combustion of the animal compound is not the only source of heat.

Now, a great portion of the water contained in the food consumed by animals (all that portion, which is not carried off by excretion) escapes by evaporation. In the process of evaporation, this water receives from the animal system as much heat as would have converted the same weight of water to vapour in the ordinary way, over a lamp or a fire.

The weight of combustible matter necessary for this purpose appears from the experiments of Despretz. According to his experiment, one ounce of carbon, evolved during combustion as much heat as would raise the temperature of 105 ounces of water at 32° to 167°; that is, by 135 degrees, which is equal to 14,207 degrees of heat. It would therefore require the combustion of 7.68 parts by weight of carbon, to convert 100 parts of water at 98° (the temperature of the human body) to vapour.

These data Liebig admits as correct, gives them in his work on Chemistry, and uses them on various occasions in explaining his views. But, in his examination of the experiments of Dulong and Despretz, he appears entirely to have overlooked the latent heat of vapour, and left it out of his calculations. He labours to show that the heat produced by the direct combustion of the constituents is equal to, or not greater than, the heat evolved by animal bodies; and thence infers that the combustion of the animal compound, unaided by the animal organism, being just sufficient to supply this heat, must be the source of it. If he has not proved this, he has proved nothing—if he has proved this, he has disproved his own theory: for, if the heat supplied by the combustion of the animal compound, telling so exactly with the amount of the heat evolved, and a large quantity of heat is, moreover, supplied by the animal for the purpose of evaporation, which is not evolved, but becomes latent, it follows that such further supply must have some other source than the combustion of the animal compound, and we may fairly say with the Baron that his figures need no comment.

But the subject is too important to be dismissed without further comment, I purpose, therefore, to examine some of the experiments in detail.

On referring to Despretz's description of his experiments, we find that the first, in the Table I., was made with a full-grown rabbit, which imparted 8,226 degrees of heat to the water in the vessel which surrounded it, in one hour and thirty-six minutes, during which it was furnished with 2,929 cubic inches of atmospheric air, and formed 188 cubic inches of carbonic acid; and, in addition to the volume of oxygen which formed the carbonic acid, there disappeared from the experiment 60 cubic inches of oxygen, which is calculated for as having combined with hydrogen in the animal system, and formed water.

On comparing the sensible heat evolved from this rabbit during this period, with the heat generated by the combustion of as much carbon as would have given this volume of carbonic acid, and that generated by the combustion of as much hydrogen as would form water with these 60 cubic inches of oxygen, we have—

Heat evolved by the rabbit in 1 hour and 36 minutes ..... 100

According to Despretz's calculation.	Heat evolved during the same period by the formation of the carbonic acid	68.5	90.4
	By the formation of water	21.9	

According to Liebig's corrected calculation.	By the formation of the carbonic acid	75.01	107.48
	By the formation of water	32.47	



The corrected calculation gives the heat evolved from the rabbit nearly seven and a half per cent. in favour of Liebig's theory.

The first experiment, in Table II., was made with a cat two months old. It weighed 10,993 grains, was supplied with 1,848 cubic inches of atmospheric air in one hour; during which 130.6 cubic inches of carbonic acid were formed, and 24.1 cubic inches of oxygen disappeared, which is calculated for as having formed water, in the animal system.

On comparing the heat evolved by the cat with that which would be generated by the formation of the carbonic acid, and of the water in the manner above mentioned, we have—

According to Despretz's calculation.	Heat evolved by the cat . . . .	100	72.9
	Heat by the formation of the carbonic acid . . . . .	53.5	
According to Liebig's corrected calculation.	Heat by the formation of water . . . . .	19.4	94.9
	Heat by the formation of the carbonic acid . . . . .	63.2	
	Heat by the formation of water . . . . .	31.7	

Neither Despretz nor Dulong has furnished us with statistical information upon either the kind or the quantity of food consumed by the animals they experimented upon; both of which appear to me to be indispensable to a correct result. To supply this deficiency, I shall here introduce experiments made upon animals of the same kind, which were continued for several days; during which the animals were supplied with their usual food.

The first was made with two kittens six weeks old, which were fed with skimmed milk only. During these twelve days they ate 102 fluid ounces of this milk, whose specific gravity varied from 1033 to 1035 at 60°, making the weight of milk consumed about 46,140 grains.

A portion of this milk, sp. gr. 1034, was analysed, which gave for its constitution—

	Per Cent.	Quantity consumed.
Carbon . . . . .	3.614	1667.5
Hydrogen . . . . .	.176	81.2
Nitrogen . . . . .	.417	192.4
Ashes . . . . .	.714	329.4
Water . . . . .	95.079	43869.5
	100.	46140.

The weight of the two kittens was, at the commencement and at the conclusion of the experiment, as follows:—

	June 13. Grains.	June 25. Grains.	Increase. Grains.
No. 1. . . . .	5985	6492	507
2. . . . .	6205	7243	1038

Total increase in twelve days. . . . . 1545

The excretions weighed 10,100 grains, and were constituted of—

Carbon . . . . .	2.9	292.9
Hydrogen . . . . .	.4	40.4
Nitrogen . . . . .	1.5	151.8
Ashes . . . . .	2.8	282.5
Water . . . . .	92.4	9332.4
	100.	10100.

These experiments were made in the year 1843, when I was engaged in the inquiry into the secretion of carbon by animals. They may be depended upon for our present purpose, although they were unfit for the purpose intended, because the animals were in a restless condition while they were enclosed in the apparatus—a condition which appears to increase the power of secreting carbon.

During each of the twelve days they were separately placed in an apparatus, and the volume of carbonic acid accurately determined. The average volume from No. I. was 53.1 cubic inches, from No. II. 56.8 cubic inches, per hour.

On deducting the excretions from the weight of the milk consumed, we have the weight of the carbon and hydrogen which entered into the constitution of the carbonic acid and the water, of the

water which passed from the bodies of these two animals in the shape of vapour, and the weight of the elements by which the two animals increased 1,545 grains in weight.

	Car.	Hyd.	Nitro.	Ash.	Water.	Total.
Milk . . . . .	1667.5	81.2	192.4	329.4	43869.5	46140
Excretions . . . . .	292.9	40.4	151.5	282.8	9332.4	10100

Difference . . . . . 1374.6 40.8 40.9 46.6 34537.1 36040

Let us assume that the 1,545 grains which the two animals increased in weight were composed of—

Carbon . . . . .	312.6
Hydrogen . . . . .	24.8
Nitrogen . . . . .	40.9
Ashes . . . . .	46.6
Water . . . . .	1120.1

1545 grains.

These leave 1,064 grains of carbon and 16 grains of hydrogen, which formed carbonic acid and water with inspired oxygen; and 33,417 grains of water, which passed off as vapour from the two kittens.

Now, there being little difference, as regards the question between one warm-blooded animal and another, let us apply to the result of this experiment Liebig's observations on an assumed case of man and his food. At page 35, in his work on Animal Chemistry, his views upon this subject are illustrated as follows. The combustion of 13.9 ounces of carbon will yield 197,477 degrees of heat, and which is sufficient for all the purposes of a full-grown person for twenty-four hours, and gives the following as an illustration:—"If we assume that the quantity of water vaporized through the skin and lungs in twenty-four hours amounts to 48 ounces (3 pounds), there will remain, after deducting the necessary amount of heat 145,387 degrees, which are dissipated by radiation, by heating the expired air, and in the excrementitious matters." This, he adds, on taking into account the heat generated by the combustion of the hydrogen in the food, "is amply sufficient to explain the constant temperature of the body, as well as the evaporation from the skin and lungs."

In the above experiment we have, according to Liebig's view, 1,064 grains of carbon and 16 grains of hydrogen, which underwent combustion in the animal system in twelve days, and formed carbonic acid and water; and which, according to his theory of the sources of animal heat, must have furnished all the heat which converted to vapour 33,417 grains of water, as well as that which was radiated, and which heated the expired air, &c.

According to the "corrected calculation," this 16 grains of hydrogen would generate as much heat by combustion, as 64 grains of carbon, making the heat generated by the two equal to that of the combustion of 1,128 grains of carbon.

In accordance with Liebig's view, 100 parts by weight of water, at 98°, require for its conversion into vapour the heat evolved by the combustion of 7.68 parts of carbon; this 1,128 grains would convert to vapour 14,687 grains of water: only 44 per cent. of the actual evaporation. Whence then, if Liebig's theory be correct, proceeded that heat which converted to vapour, in this case, the other 56 per cent. of the water, the heat which was radiated from the body; and that which raised the temperature of the food to that of the body, and heated the inspired air? (a)

When we examine the statical evidence of Liebig's own fixing, we are forced to look for some other source from whence these animals derived their heat besides that of the combustion

(a) The water supposed to be formed by the combustion of the 16 grains of hydrogen is not taken into account.

	Car.	Hydro.	Nitro.	Ash.	Water.	Total.
Sowthistles . . . . .	1455.3	39.1	90.4	619.6	42715.6	45000
Oats . . . . .	540.4	18.2	19.6	106.4	715.4	1400
Total . . . . .	1995.7	57.3	110.	726.	43511.	46400
Excretions . . . . .	1112.0	48.2	90.6	704.	16605.2	18560
Difference . . . . .	883.7	9.1	19.4	22.	26905.8	27840

of the carbon and the hydrogen in the food; and this other source, whatever it be, must supply an amount of heat sufficient to convert to vapour more than half the water which passes off in that state from these animals—all that heat which is radiated by them, all that which is required to heat the expired air, and all that which is required to raise the temperature of the food to that of the body. Or, in other words, if we say with him, that "The heat evolved in the process of combustion to which the food is subjected in the body, is amply sufficient to explain the constant temperature of the body, as well as the evaporation from the skin and lungs"; this "constant temperature" of young kittens, which subsist upon their ordinary food, must be lower than the objects which surround them. Consequently if the cat two months old, upon which Dulong experimented, was fed upon skimmed milk, instead of imparting heat to the water which surrounded the apparatus in which it was confined for one hour, which was the case, it would have acted as a refrigerant, and cooled the water which surrounded the apparatus.

Let us now apply the same data and methods of reasoning to the first-mentioned experiment in Table I., which has been already noticed, and call in the aid of an experiment made in the month of June, upon a rabbit fed with the leaves of sowthistles and oats—a description of food these animals are fond of. This rabbit weighed at the commencement 3.84 pounds. During the seven days it was under experiment it increased in weight to 4.02 pounds, and consumed 45,000 grains of sowthistle leaves and 1,400 grains of oats, which consisted of:—

Sowthistle Leaves.		
Carbon . . . . .	3.234	1455.3
Hydrogen . . . . .	.087	39.1
Nitrogen . . . . .	.201	90.4
Ashes . . . . .	1.377	619.6
Water . . . . .	95.101	42795.6
	100.000	45000.0
Oats.		
Carbon . . . . .	38.6	540.4
Hydrogen . . . . .	1.3	18.2
Nitrogen . . . . .	1.4	19.6
Ashes . . . . .	7.6	106.4
Water . . . . .	51.1	715.4
	100.0	1400.0

The excretions weighed 14,750 grains; but owing to the vapour of water and a little ammonia which passed from them, and a small loss of urine, their weight was not accurately determined: the parts collected, however, comprised most of the carbon and hydrogen. But, that the experiment may be represented as favourably as possible for the theory under consideration, it is assumed in the following analysis that the loss of urine and vapour of water from the excretions made the whole quantity equal to 40 per cent. of the weight of the food consumed.

The 14,750 grains of excretions, when brought by drying to the state in which they were analysed, weighed 4,080 grains, constituted of—

Carbon . . . . .	27.26	1112.0
Hydrogen . . . . .	1.18	48.2
Nitrogen . . . . .	2.22	90.6
Ashes . . . . .	17.25	704.0
Water . . . . .	52.09—100	2125.2—4,080 grains.
Water evaporated by drying . . . . .		9,570 "
" to make the whole quantity		
40 per cent. . . . .		4,910 "

Total weight of excretions . . . . . 18,560 "

On recapitulation we have the elements of this experiment as under:—

	Car.	Hydro.	Nitro.	Ash.	Water.	Total.
Sowthistles . . . . .	1455.3	39.1	90.4	619.6	42715.6	45000
Oats . . . . .	540.4	18.2	19.6	106.4	715.4	1400
Total . . . . .	1995.7	57.3	110.	726.	43511.	46400
Excretions . . . . .	1112.0	48.2	90.6	704.	16605.2	18560
Difference . . . . .	883.7	9.1	19.4	22.	26905.8	27840



It is shown in this line of difference that 883.7 grains of carbon and 9.1 grains of hydrogen underwent combustion in the animal system, in seven days, and there passed off as vapour from the skin and lungs of this rabbit at least 26,905 grains of water.

The rabbit, on being placed at different times in an apparatus, content 5,250 cubic inches, formed upon an average 125 cubic inches of carbonic acid, and decreased the volume of oxygen 37 cubic inches per hour.

The results of this experiment, as to the formation of carbonic acid gas, and disappearance of oxygen gas, forming water, correspond as nearly as may be with the results of the first experiment given by Despretz.

If the theory of animal heat contended for by Baron Liebig be correct, the combustion of the 883.7 grains of carbon and 9.1 grains of hydrogen must have generated as much heat as raised the temperature of the food to that of the body, supplied that heat which was radiated and converted to vapour 26,905 grains of water.

According to the laws of evaporation, the heat thus produced must raise the temperature of the food to that of the body first, before it can convert the 26,905 grains of water into vapour. Now, the heat generated by the combustion of 9.1 grains of hydrogen, according to the corrected calculation, would be equal to 36.9 grains of carbon, making the heat generated by the combustion of the carbon and the hydrogen, collectively, equal to that of 920.6 of carbon in the seven days.

According to Despretz's experiments, already referred to, the water which passed off as vapour in the seven days would require as much heat as that produced by the combustion of 2,066 grains of carbon—1,145 grains more than were present in the experiment. Hence, according to Liebig's theory, this rabbit, which Despretz kept under experiment for one hour and thirty-six minutes, during which it imparted 8,226° of heat to the water in the vessel which surrounded it, would have cooled the water by abstracting from it 9,000° of heat.

From these experiments, examined by Baron Liebig's own data and figures, it appears that the animal economy requires double the amount of heat which can be produced by the combustion of the carbon and hydrogen contained in the food. There must, therefore, be some other source from whence animals derive heat besides that of the combustion of these bodies.

Another feature in these experiments claims our attention. Whilst these animals were under experiment there was, in each case, removed from the atmosphere a considerable portion of oxygen, which is calculated for as having combined with hydrogen. In the experiment, by Despretz, upon the rabbit, which we have been considering, this volume of oxygen was 60 cubic inches in one hour and thirty-six minutes, and 37 cubic inches per hour in the experiment upon the rabbit made by me. And in the experiment, by Dulong, with the kitten, this volume of oxygen was 24 cubic inches per hour.

Despretz and Dulong supposed these volumes of oxygen entered into combination with hydrogen in the animal system, and formed water; and made their calculations relating to the evolution of heat by combustion accordingly. And Liebig, in reviewing this feature of their experiments in the paper already referred to, says—"With respect to his (Dulong's) supposition, viz., that that portion of the oxygen which is absorbed in the respiratory process, without forming subsequently carbonic acid, combines with hydrogen, forming water, this is not open to any objection or doubt."

On a more careful examination of this part of the subject, a question arises—Whence proceeded so much hydrogen as combined with these volumes of oxygen? To meet this question, by evidence the most favourable for the view of these physiologists, I have selected, as examples, experiments made with animals which subsisted upon food comprising the largest proportion of hydrogen of any in my possession.

In Dulong's experiment with the kitten 1.025 grains of hydrogen would combine with the 24 cubic inches of oxygen, which disappeared, and form 9.225 grains of water during each hour. In Despretz's experiment with the rabbit, the oxygen which disappeared, on combining with hydrogen, forms 14.422 grains of water; and the same was the case with the rabbit upon which I experimented, during the period it was kept in a confined atmosphere. If this combination went on uniformly during the experiment, day and night, the hydrogen in the food of the kittens for twelve days would hardly have been sufficient for the cat upon which Dulong experimented for forty hours; and the hydrogen in the food consumed by the rabbit in seven days would only have been sufficient for the consumption of six hours. (a)

So also, with respect to the carbon in the food of these animals, it would appear, from the results of Despretz's experiments and of my own, that the carbon in the food consumed during a given time would only be sufficient to keep up the formation of carbonic acid one-third of that time. Allowing for the carbon in the increased weight of the animal, the carbon in the food of the rabbit which went to the formation of carbonic acid formed only 34.5 per cent. of the weight which would have been required for the formation of carbonic acid actually formed, supposing that the animal gave off as much at all times as it did during the period Despretz kept it under experiment. The same applied to a much greater extent to the experiments with the kittens.

Consequently these animals, and particularly the kittens, must either have evolved an extraordinary large quantity of carbonic acid when kept in confined atmospheres, when compared with the quantity they give off at other times; or they must have the power of forming or secreting carbon out of other bodies.

Experiments made with tame animals favour the latter inference, and those made with wild animals (b) and birds dispose us to draw both these inferences. A cat, for example, when kept in a confined situation for two or three days, varying with the violence of the animal, without any other food than water and pure atmospheric air, will give off a volume of carbonic acid containing more carbon than is comprised in another cat of the same weight and size with it. And proportionately to the exertion of the animal is the formation of carbon, the disappearance of oxygen, the evolution of heat, and the loss in weight. Hence the volume of carbonic acid which was given off by the animals in the experiments conducted by Despretz and Dulong may be regarded as exceeding the volume which would be given in the same time, if the animals were free.

The points to which I particularly wish to draw the attention of the reader are—That an important principle in animal economy, namely, the latent heat of perspired vapour, has been overlooked alike by Dulong, Despretz, and Liebig, in their calculations and conclusions upon the sources of animal heat. That, although the data and reasoning of these chemists are true to a certain extent, their general conclusions are vitiated by this oversight. Had Baron Liebig employed the same data in examining the results of the experiments made by Dulong and Despretz, which he employs on other occasions, he would have come to a conclusion the reverse of his present one. That, assuming our ideas as to the genera-

(a) There is no reason to suppose that these animals, when under experiment, were enabled by any extraordinary influence to appropriate a larger volume of oxygen than usual to the purpose of forming water with hydrogen in the system; it is more probable that a portion of atmospheric oxygen enters into some other combination, the nature of which we are not acquainted with; and I would venture to suggest that this disappearance of atmospheric oxygen may furnish some clue to the discovery of the sources of animal heat.

(b) See *Medical Times*, vol. xi. p. 14.

tion of heat by the combustion of carbon and hydrogen to be correct, the experiments of Dulong and Despretz, when examined in connection with the food consumed by the animals on which they experimented, conclusively prove that there must be some source of animal heat besides that of the combustion of the carbon and the hydrogen in the food of animals and in the animal system. That this source must, in many instances, yield an amount of heat exceeding that generated by the combustion of the carbon and the hydrogen in the food consumed. That the results of these experiments do not warrant Liebig's conclusion that that portion of the oxygen which is absorbed by the respiratory process, without forming subsequently carbonic acid, combines with hydrogen, forming water. That the disappearance of inspired oxygen under violent animal exertion, the disappearance also of fat and other bodies containing hydrogen, and the evolution of more carbon than can be accounted for as having been in the animal system, suggest the idea that a portion of carbon is secreted, and that in this secretive process oxygen and hydrogen are employed.

In my next communication I shall show that the experiments brought forward by Baron Liebig in his work on Animal Chemistry prove most conclusively that the views on animal heat which he wishes to establish are erroneous.

Greenford, Middlesex, Nov., 1846.

#### OBSERVATIONS ON SOME OF THE MORE IMPORTANT POINTS CONNECTED WITH ERYSIPELAS, AND ITS TREATMENT.

By HENRY SMITH, M.R.C.S.,  
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Whilst pursuing my medical studies in London I was particularly struck with the great number of cases of erysipelas which at different periods showed themselves in the hospitals and amongst the poorer classes in this city, and with the vast amount of surgical operations and injuries which have either proved fatal or have been retarded in their cure in consequence of an attack of this disease. But it was more particularly whilst I was the resident surgical officer to King's College Hospital that my attention was called to this fact, and my mind was directed to investigate its cause, its nature, and the means of cure and prevention.

During the last spring and summer we unfortunately had a great number of cases of erysipelas in the wards, and they were almost entirely confined to that part of the institution which was under my immediate superintendence. I have also learnt from parties connected with the other metropolitan hospitals that erysipelas has raged in some of those institutions to a great extent, and in some has proved very fatal.

I have, therefore, determined to lay before the profession, observations on some of the more important points connected with the disease, and some remarks on the treatment which I have seen pursued, without pretending to a complete essay on erysipelas, which would be a wearisome and unprofitable task, as so many excellent works and papers have been written on the subject.

I shall not, therefore, attempt to describe minutely the symptoms of the various forms of erysipelas in detail, as every one possessing a moderate amount of professional knowledge must be familiar with them. I shall advert to them more particularly in the remarks I shall think fit to make, and shall illustrate them by the cases I shall bring forward.

A great number of diseases which attack the human frame have morbid poisons circulating in the blood for their cause. Amongst the most prominent of these are continued fever and the exanthemata. The characteristics of these diseases are, that they have a certain period of incubation, are attended with more or less fever, run a certain course, and are propagated by contagion. For the most part an eruption is peculiar to them.

That we ought to class erysipelas amongst these diseases is, I think, strictly proper—that is to say, if we are to class diseases according to their symptoms



and causes: for, although erysipelas shows itself as a local disease, the inflammation on the skin is merely an external manifestation of an inward complaint, and the constitutional symptoms present those forms which are generally noticed in the above-mentioned disorders. But it is more particularly in the idiopathic form of erysipelas, attacking the head and face, that we see the similarity between it and the exanthemata.

The person who is so attacked has a rigor, followed by heat of surface; and constitutional disturbance, which lasts for some time; in a few hours a specific eruption breaks out on his face, lasts for some days, and then disappears. There is also another similarity between erysipelas and the disorders caused by these specific poisons, namely, this, that the symptoms for the most part have a tendency to assume a low form, if not during the whole of their course, at least during the greater part of it. In traumatic erysipelas there is not the same regularity in the course of the complaint. As in the idiopathic variety, therefore, we cannot so strictly liken it to the exanthemata; although we may be certain that idiopathic and traumatic depend upon the same poison, therefore we may class all erysipelatous cases under the head of diseases caused by specific poisons.

These diseases appear as epidemics, and also spread by contagion; so, also, we see that erysipelas rages as an epidemic, and there is very little doubt that it is propagated by contagion; and I will proceed to consider this point, as it is doubted by some, whether the disease is contagious or otherwise.

Although some writers have denied, or at least doubted, the contagiousness of erysipelas, many have testified to the contrary; but Mr. Nunneley, in his excellent work on Erysipelas, well observes:—"It is still an unsettled question amongst the profession, whether erysipelas be a contagious or an infectious disease." One of the highest authorities on the subject, Mr. Lawrence, says, "Erysipelas arises from many causes, amongst which it is doubtful if contagion is to be included." Mr. Startin, in his lectures on Diseases of the Skin, published in the *Medical Times*, states that "his experience of five or six years has failed to satisfy him on this point." Amongst those who affirm that it is contagious are—Copland, James, Elliotson, Watson, and Liston; and the cases quoted by some of them, and by others, are, I should think, almost sufficient to convince any unbiased mind; but, as a large number of facts are necessary to settle such a point as this, I shall add some which have fallen under my own notice, for the purpose of strengthening my argument that this disease is contagious.

When erysipelas attacks one patient in the ward of a hospital which has hitherto been healthy, how often do we find it rapidly spread from one party to another, and in a manner which can only be laid down to contagion? A case of erysipelas is brought into a ward; a patient in the same ward undergoes an operation, or is affected with some wound; in a few days the disease attacks him, and others similarly circumstanced are attacked one after the other. In the accident ward of King's College Hospital there was a patient with erysipelas of the leg; there were three cases of recent wounds in the same ward, which had been hitherto particularly free from erysipelas; within forty-eight hours every one of them was attacked with the disease. There were only one or two isolated cases in the hospital at this time, so that it is hardly likely that these cases depended upon the state of the atmosphere; it is most probable that the disease was propagated from one to the other, by the nurse or other attendants; and I more readily believe this, as the nurse in this ward was not so particular as she ought to have been, in preventing the means of contagion.

One curious fact I noticed in the hospital during the summer, which I think will help to prove the point. A female, labouring under an attack of erysipelas, was admitted into the Victoria Ward. In the next bed, was a young woman, with a large ulcer on the leg, and phlegmonous abscesses on the inside of the thigh; her health was much broken down by privation. She was seized with erysi-

pelas, but the disease did not attack the part which we should have expected, it attacked the head and face, which were in a sound state. If the disease had been part of an epidemic, and influenced by atmospheric changes alone, it is extraordinary that the open sores were not affected, instead of a sound part of the body. The beds were next to each other. The probability is, that care was taken in the dressing of the sores not to expose them to contagion; and that the poison, not being able to attack them, was transmitted from one patient to the other through the air, and thus showed itself on the head and face.

About the same time another patient, who lay nearly opposite to the one originally attacked, and who had undergone an operation, the wounds made in which were almost entirely healed, was seized with the disease and died. As far as I can recollect, there had been no cases of erysipelas in that ward for some time before; but from this time it was seldom free from it, until it was cleaned out; and the most disastrous cases happened in this ward.

My friend Mr. French, the surgeon to the St. George's and St. James's Infirmary, tells me that erysipelas never spreads in the wards, when the beds are very close together, as he takes the precaution of moving the patient away when any case occurs.

Mr. Hyde, house-surgeon to St. George's Hospital, related to me a fact which will show the contagiousness of erysipelas. Two persons came to see a friend of theirs, who was attacked with the disease in his head. They were both well at this period; within the space of one week, they were both attacked with the disease in the head and face.

I shall not multiply these facts, by quoting recorded cases, but shall content myself with having related what has fallen under my own observation, as I shall do in every part of this essay, and my readers can draw what inferences they wish.

That erysipelas spreads as an epidemic, and is much influenced by atmospheric changes, there can be no doubt. One state of the air produces one poison, and one another; as an instance, I may produce the existence of the diseases which have prevailed during the last twelve months. During the last winter, which was very mild, fever raged to a great extent amongst the lower orders of the metropolis; this continued for some months, and at last gave way. During the spring and ensuing summer, erysipelas was very prevalent in London, both in the public institutions and in private houses; this gave way, and now fever is raging to a great extent amongst the poorer classes, and causing a large mortality.

At the time the patients in the hospital were so much attacked with it, I noticed that several persons who had received injuries, and whose wounds were dressed by myself, were affected with it at their own homes, chiefly in a mild form.

An important point connected with the subject of contagion, to which I wish to call particular attention, is the possibility of the practitioner's being able to carry the disease from one patient to another, and thus become unconsciously the source of death or protracted illness to his patients. I have no doubt that many, very many, cases of erysipelas are produced in this manner, particularly in the public hospitals, where a great many persons are seen by one attendant, and where, from various reasons, that strict precaution to prevent anything of the kind taking place is not properly attended to, or is forgotten. I shall not refer to published cases, but shall content myself with relating the following unfortunate case:—On the morning of August 18, I went to see a man who was attacked with severe phlegmonous erysipelas of the leg, in which I made some incisions and afterwards dressed it. About four hours after this, I performed a slight operation upon the lower extremity of a female, who was living in an airy house near Red Lion-square. On the third day after the operation, erysipelas appeared around the wound, spread up the limb, involved the deep-seated tissues of the thigh, and terminated in five days, fatally. I am afraid there can be little doubt that the poison was carried by me to this

poor woman, and that I unconsciously became the cause of her death; facts such as these are sufficient to make the most careless think, and endeavour to obviate such occurrences for the future.

It has been considered by many, that the disease may be carried by the practitioner to his patients, and may produce affections of a different nature, as regards locality, but similar in their pathological bearings. It has been pretty well proved that puerperal peritonitis may be caused by the unconscious practitioner, who, first having dressed erysipelatous sores, has afterwards attended women in labour. Many cases of this kind have been related, and the connection between erysipelas and puerperal fever has been distinctly shown by the best modern authorities on the latter disease, amongst whom I may mention Clarke, Fergusson, Lee, Gordon, and others. From the statements of these gentlemen, we learn that, whilst puerperal fever was raging in populous towns and lying-in hospitals, erysipelas was also prevalent in the same neighbourhoods; and we also learn that the prevailing character of the two diseases were similar, that they presented the same type, that the products of inflammation were the same, and that they required the same treatment. I have seen cases when this most subtle poison has propagated itself from one party to a second, and has produced most fatal forms of disease; and which are similar to the original disorder only as regards the low form of the symptoms, and differing from it in there being no external inflammation. I can relate one very interesting and melancholy case of the kind. In the summer of 1845, a child was operated upon for harelip in King's College Hospital. The mother of the child, an exceedingly healthy countrywoman, was allowed to remain in the ward with it, and to sleep in the same bed. In two or three days erysipelas attacked the child's face; the mother still nursed it and slept in the same bed with it; in a short time she was taken with febrile symptoms, which put on a very low form, similar to that which is seen in phlebitis. She died in a week, and on post-mortem examination the ovaries were inflamed and disorganized, and pus was found in the veins of the pelvis. If I recollect rightly, she was menstruating at this period. There was no doubt on the minds of those who saw the case and knew the history, that there was a direct communication between the erysipelas and her fatal disorder.

I attended a female who died of phlegmonous erysipelas of the thigh, accompanied with very low symptoms. A young woman who attended her, both before and after death, and washed the body, was seized with a low fever and died in a week. The mother of this young woman, who attended upon her, was taken ill and carried off in three days. Another stout, hearty woman, who also closely attended the woman who had the erysipelas, was shortly afterwards attacked with fever, attended with a peculiar eruption, from which she happily recovered. I have every reason to suppose that this deadly disease owed its origin to the erysipelas, so subtle is the poison, and so many various forms of disease will it produce. Very interesting is the study and record of such cases, and very useful, as, by a proper knowledge of such facts, we may with care, I hope, be able to prevent such frightful consequences to those who are engaged in the humane office of attending to the wants of their sick fellow-creatures.

(To be continued.)

#### MR. BROWN'S CASE OF OVARIAN DROPSY.

(To the Editor of the Medical Times.)

SIR,—I regret that I have not beside me any notes of the case of "Mrs. D.," alluded to by Mr. Isaac B. Brown, in the last number of your journal—a case which I am said to have called "dropsy in a tumour." I am not even conscious of having undertaken its treatment. I conclude, therefore, that Mr. Brown's patient must have been one of the many who come to me, as they do to other physicians, for an opinion, and, unless they receive great encouragement, may seldom return again. In their peregrinations they usually fall into the hands of some of the faculty who are remarkable for the



boldness with which they undertake to cure what other medical men will make no promise about.

Mrs. D. had been seen by four of the profession before she fortunately met with Mr. Brown, who now reports her case as cured. However, "she has now a discharge of a mucro-sanguineous character, probably arising from disease of the uterus; but, as she will not consent to an examination *per vaginam*, I [Mr. Brown] cannot state its nature; there is, however, no reaccumulation of the fluid, and it is now twelve months since she was tapped." The case would have been more complete had a vaginal examination been permitted. The refusal is rather singular, as the patient submitted to it before, and "Mr. Brown found the uterus *inverted*, the fundus pressing downwards, and filling up the entrance of the vagina,"—rather a novel effect of ovarian disease.

The object of this communication is not, however, to criticise Mr. Brown's diagnosis, but rather to express my doubts of the proposed practice—doubts excited not by any *a priori* reasoning on the subject, but by a few facts that have fallen within my observation. I quite agree with Mr. Brown, "that facts are more convincing than any arguments," and on this principle shall briefly relate the results of two cases of ovarian disease that form, I think, an instructive parallel.

In March, 1844, I was consulted by a lady of spare habit of body but good constitution, and of cheerful temperament. The catamenia were about disappearing, and the left ovary had enlarged, until a cyst, apparently uni-locular, had almost occupied the whole abdomen. Fluctuation was distinct throughout.

She had previously consulted some eminent obstetric physicians, who all agreed in the same view of her case, although they differed slightly in their mode of carrying out. Tapping was disapproved of, her general health supported, and moderate pressure by a bandage recommended. I saw no reason for altering this practice, but being at the time a little under the influence of Mr. Brown's published cases, although still having a strong objection to opening the cyst, I took the middle course. An equable but firm pressure was employed over the whole abdomen; mercury was given to excite salivation, the kidneys were acted on by diuretics, and the bowels strictly attended to. I soon found I was proceeding in a wrong direction: pressure was borne tolerably well, but the moment salivation commenced it was accompanied by such prostration that I was obliged to discontinue it. Diuretics increased the flow of urine considerably, but did not diminish the fluid by a single drop. This treatment was therefore given up. Diffusible stimulants were first prescribed, and afterwards tonics, until her health was in some degree re-established. The bandage was, however, still continued, so as to maintain moderate pressure over the cyst. After a little time all medicines were discontinued, excepting a mild tonic aperient; a liberal diet and wine were allowed, and my patient went to the country.

This lady returned to town in the beginning of 1845, her health being greatly improved, but no alteration whatever in the cyst; the bandage was still worn as before, no other treatment was thought necessary, and she again returned to the country. Having lately experienced more than usual inconvenience from the disease, she has yielded to the urgent solicitations of her friends, and has come up to London for the benefit of Dr. F. Bird's opinion and treatment.

While treating this case, doubts occasionally arose in my mind that Mr. Brown's treatment should have been fully carried out; that she should have been bandaged strongly *after* being tapped, mercury more fearlessly given, and diuretics, &c., persevered in. I certainly did no harm; but could I have done more good? While meditating in this way, another case came under my notice, in July, 1845, that seemed to settle the question. A lady suffering from the same disease was sent up expressly to London, to decide what treatment should be adopted for her recovery. Opposite opinions had been given upon it, and this means was adopted for a decision. I was requested to see the lady and to give my opinion. She was younger than my

former patient, the cyst not quite so large as her's, but in other respects similar to it. I was asked my opinion as to tapping, mercury, &c., which I gave; but I have no doubt, having spoken less decidedly than was expected. I was again requested to meet Dr. Leacock. I gladly availed myself of the benefit of his experience, and, as he had witnessed a case in which Mr. Brown's practice was successful, it was agreed to recommend it in the present instance. The lady then retired to the country to place herself in the hands of the practitioner, who so strongly advocated Mr. Brown's plan of treatment. I heard no more of the case. The lady whom I first mentioned having, however, come to town, being now more than three years comparatively well, it occurred to me to make some inquiries about the result of Mr. Brown's plan of treatment in the latter case. It had utterly failed, the disease again showed itself in a more aggravated form, and at the beginning of the present year she again came to London consult Dr. Rigby. All hope of recovery was passed, and she died in March last.

These two cases were so very similar in their characters—the advantage, if any, being in favour of the younger lady—that the contrast in the results of the treatment has made a strong impression on my mind, and has greatly increased my objection to the plan which Mr. Brown has proposed.

A single unsuccessful case, it may be said, proves nothing. This I admit; nevertheless I think it is of the highest importance, when a new practice is pressed forward, that the unsuccessful cases should be made known, equally as those that have been more fortunate, in order that the profession may form a proper judgment on the question of treatment. It is for this reason that I have trespassed upon your attention, as the case that I have quoted seemed so very much to the point—one in which the health, the age, and the fortitude of the patient, were in every way favourable for the success of Mr. Brown's practice. She did not survive it a year, while the lady I first alluded to is now living, and in high spirits, from the idea that her malady can be removed.

I am, Sir, your obedient servant,  
EDWARD V. MURPHY.  
12, Henrietta-street, Cavendish-square, Dec. 14.

#### OVARIAN DROPSY.

[To the Editor of the Medical Times.]

SIR,—In the very imperfect history of a case of ovarian dropsy, said to have been cured by pressure, &c., and recorded by Mr. I. B. Brown in your last number, it is stated that the patient "saw Dr. F. Bird, who said it was ovarian dropsy, and was a most favourable case for his operation, and placed her under preparatory treatment for the operation." I much regret that Mr. Brown has allowed himself to commit the needless error of stating that publicly as true, which seems to have been communicated to him by a patient, who, without any desire to misconstrue, appears in ignorance to have done so. With the motives or the taste with which Mr. Brown has made such unsupported and irrelevant statements, I have nothing to do; but it may be well to suggest to him that he in no way advances the objects of recorded medical experience by informing your readers that the first practitioner consulted by his patient committed a very inexcusable error in diagnosis—that a second prescribed a course of treatment from which no benefit resulted—that a third gave a very unscientific description of the disease, and that a fourth prepared the patient for operation, when Mr. Brown was summoned, and the malady, invincible before, yields to the efficacy of "his plan." I doubt much the correctness of the statement made by the poor woman of the error in diagnosis of Mr. C.; I doubt still more that the accomplished lecturer on obstetric medicine in University College gave such a description of the disease; and I am quite sure that I have never yet pronounced any case of ovarian disease to be most favourable for the operation of extirpation; whilst the preparatory treatment alluded to has no existence save in the imagination of Mr. Brown or

his patient. I beg, therefore, to deny the accuracy of such statement. Of the case itself nothing can be said, save that there are one or two collateral features highly curious, and not less unintelligible. Thus, for example, the patient is described as being the subject of *inverted uterus*; but no sooner has Mr. Brown's "plan" been tried than she becomes pregnant, and passes on to the tenth week of gestation. It is not too much to assume that pregnancy could not conveniently occur with inverted uterus, and, as after mercurial friction and flannel the patient becomes pregnant, it follows that Mr. Brown's "plan" is not only, according to his own statement, curative of ovarian dropsy, but also of an uterine affection commonly regarded as equally irremediable. Another interesting, but still extraordinary, effect is to be met with in the subsequently altered condition of the secreting structure of the tumour. The abdomen ceases to enlarge, the fluid to be formed, and the "cyst rests on the pelvis"; and when "no trace of the cyst" can be detected, it is then gradually undergoing a process of desiccation, and the "patient describes her sensations as if the cyst were gradually drying up." Truly it would be interesting to have a more elaborate description of such remarkable sensations. I do not pause to offer any general remarks upon the practice advocated by Mr. Brown, because repeated observation has convinced me of its complete inutility, and its frequently mischievous effects. I have seen the worst termination attend its employment, and have in vain sought for a well-established instance of its efficacy. I object to Mr. Brown's published cases, because they are so imperfectly written that it becomes difficult to understand them, or to trace out any evidence of correct diagnosis or successful treatment. I object to the practice, but it is less than rational to believe that the complete removal of disease can be effected by its agency, and because it is in direct opposition to certain general laws in pathology. I do not believe that the cystic secretion has in any case been permanently arrested, and, even if such cases could be adduced, it would be absurd to regard them as examples of disease cured. The cyst remains, though its secretion be arrested. It still exists though it be corrugated to its smallest bulk. So long as the sac is present there is no immunity from disease. For a time the morbid changes may take place slowly and insidiously, but they do occur, and eventually lead to more painful symptoms and more certain death.

I remain, Sir, your obedient servant,  
FREDERIC BIRD, M.D.  
53, Lower Brook-street, Grosvenor-square, Dec. 18.

#### PROGRESS OF MEDICAL SCIENCE.

##### France.

##### ACADEMY OF SCIENCES.

The meeting of December 13th was entirely devoted to subjects foreign to medical science.

##### ACADEMY OF MEDICINE.

*Annual Meeting of Dec. 14*; M. ROCHE in the Chair.

M. Malgaigne read a paper entitled "An Essay on the Philosophy of Surgery."

M. Pariset read the panegyric of the late M. Chevreul, senior, corresponding member of the Academy.

##### PRIZES OF 1846.

Academical Prize, value £60—Composition of bile; its alterations in disease, their causes, their diagnostic signs, and the most appropriate methods of treatment. The prize was awarded to Dr. Fauconneau Dufresne.

Prize founded by the Baron Portal—Anatomical changes in the lymphatic system from cancer. Value £60. Not awarded.

Civic Prize, £50—Suicide. The prize was not awarded, but honourable mention was made of the memoirs of—1st, Dr. Tissot; 2nd, Dr. Szafkowski; 3rd, Dr. Bertrand; 4th, Dr. Delahousse; and 5th, to an anonymous author.



# SUBJECTS PROPOSED BY THE ACADEMY FOR THE PRIZES OF THE YEAR 1848.

Academica Prize, £80—Establish by precise observations in what phlegmasiæ emetics are necessary.

Portal Prize, £60—Morbid anatomy of cancer.

Civrieux Prize, £60—On suicide.

Prize founded by Dr. Itard (triennial), £120—To the best memoir on practical medicine and therapeutics.

Argenteuil Prize, £325—To the most important improvement in the treatment of strictures of the urethra.

## EXPERIMENTAL PHYSIOLOGY.

M. Pagis, interne of the hospitals of Paris, having undertaken a series of experiments for the purpose of ascertaining the action of sulphate of quinine on the spleen, publishes, in the "Gazette des Hôpitaux," the results of his researches.

On a middle-sized dog the spleen was uncovered by two incisions perpendicular to each other. The transverse diameter of the viscus measured twenty centimètres, and the longitudinal six. The jugular vein was opened, and twenty-three grammes of alcoolat de quinine were injected; instantaneously the spleen diminished in every direction, its surface became rough and wrinkled, and its diameters were reduced to 14 cent. by 5.

On another animal the experiments were repeated, with a view of comparing the results of several injections: with water they were negative, with alcohol the spleen was very slightly corrugated, but with the solution of quinine the viscus contracted instantaneously in the most evident manner.

## CANCER OF THE BONES.

In a recent communication we reported a lecture, by Professor Roux, on fungous tumours of the bones. (See *Medical Times*, vol. xv., p. 204.) The following has been the issue of the case which gave occasion to the lecture:—The Professor performed ligature of the femoral artery on the 18th of November; sixteen days after, on the 5th of December, the ligature fell, and an extremely considerable hemorrhage occurred. Compression of the vessel was instituted, and Professor Roux was sent for. Another ligature was placed once inch higher up on the femoral artery; but, a large vein having been wounded during the operation, phlebitis set in, and the patient died on the 11th of December. On dissection the spleen and liver were found occupied by metastatic abscesses; the right knee was filled with pus, and the tibia was the seat of an evident encephaloid degeneration; but the cartilages of the joint were perfectly healthy.

M. Nélaton distinguishes four forms of cancer in the bones:—1. In the first nodi of cancerous matter, replace the bony tissue in the spongy and in the compact textures, and in the immediate vicinity the bone seems to have remained perfectly healthy. When the disease occupies the diaplysis of the bone it is not uncommon to see a fungous excrescence obliterate the medullary canal, and rise within its cavity far higher than the outward aspect of the disease would lead the observer to suppose; an important remark, which must not be lost sight of when amputation is contemplated. 2. In the second form, generally denominated osteo-sarcoma, the tumour is larger, and is formed by the deposition of cancerous matter in the enlarged cells of the bone. 3. In a third variety, a cancerous growth arises within a bone, and gradually dilates it, being at last surrounded by a very thin osseous shell; this is spina ventosa. 4. The tumour is attached to the bone, but covered by the periosteum; the substance of the bone is, however, diseased, and numerous projections as thin as hairs unite the tumour with the osseous texture beneath.—In all four the swelling increases gradually, becomes softened, ulcerated, returns after amputation, and finally brings on the cancerous cachexy. The cartilages of the joints are never invaded. These cancerous affections are frequently the seat of pulsations which resemble those of aneurism; it is not impossible, however, to find a difference between the pulsations of both orders of diseases, by which they may be readily distinguished. In aneurism, the pulsations exist from the very beginning of the malady; in cancer, on the contrary, they come on

only when the swelling has become extremely vascular, *i.e.*, at an advanced period of its existence.

## FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

### HEMATOLOGY.

With cancer and tubercular secretion we find that the fibrin of the blood increases in quantity only when they determine local inflammation of the parts which surround them. In utero-gestation we have analysed the blood of thirty-four subjects, and find that during the first six months the average standard of the fibrin varies very little from 2.5 in 1,000; but during the last three months it rises to 4, and sometimes more—never, however, beyond 4.8. After parturition we have not had any opportunity of testing the composition of the blood in women, but we are inclined to think that the amount of fibrin continues to increase: we are led to adopt this opinion from having remarked that such is the case in animals (sheep, cows, &c.), and from analogy conclude that an augmentation also takes place in the human species. The condition of the blood in women in labour is, therefore, strikingly analogous to that of the same fluid in persons who suffer from inflammatory disease; and the remark may, in some degree, account for the frequency and severity of phlogistic symptoms after accouchement.

So much for the increase of fibrin in disease. That element of the blood is also found to diminish in quantity in a certain class of maladies, to the consideration of which we now beg to draw your attention. Spontaneously, or from the agency of external causes, the blood sometimes loses its natural consistency, and becomes less coagulable; in such cases, clinical observation shows a general state of prostration, and in the solids of the body a peculiar sort of congestion, leading more frequently to hemorrhage than to inflammation; and chemical research demonstrates a change of composition of the blood by which that fluid has lost a portion of the fibrin. Such is, in the first place, scurvy, and in the second a disease known under the name of purpura hemorrhagica; we have analysed the blood in two instances of the latter affection: in one the fibrin descended to 0.9 in a thousand; in the other to 0.6.

In pyrexia, typhoid fever, scarlatina, measles, &c., the variations of quantity of the fibrin of the blood are submitted to fixed rules revealed by observation. When these affections proceed in a favourable manner, without occasioning adynamic symptoms, no change is remarked in the quantity of fibrin, although in various parts of the body symptoms are observed closely resembling that resulting from inflammation, *e. g.*, the pustules of variola. When the maladies alluded to are complicated in their course by the manifestation of pneumonia, or any other well-marked inflammation, the quantity of fibrin increases; but when, as it is but too frequent, collapse is observed, or when the natural course of the pyrexia is interrupted by unwonted or malignant accidental occurrences when those general conditions which have been termed ataxic or adynamic become established—then chemical analysis shows that the blood has lost a portion of its fibrin, and this element may not be found to exist in the blood-vessels in proportions superior to 0.9 or 0.8 per 1,000.

*Albumen.*—On an average, human blood may be said to contain 69 or 70 parts of albumen in 1,000; in some few cases it increases exceptionally above 80; but we have never been able to trace any connection between such increase and the presence of any disease. It is not so, however, with regard to its diminution, which we observe chiefly under the following circumstances:—

Abstinence from food, in the first place, causes the blood to lose a portion of its albumen, which it brings down to 63 or 64 per 1,000; also, when insufficient nutrition is the consequence of absence of absorption from the stomach, as in cases of cancer of that viscus, for instance, the albumen may descend even lower—to 63. Losses of blood, such as may be produced by repeated venesection during the progress of acute disease, may also lower the

average quantity of albumen as far as 64; but in abundant spontaneous hemorrhage it has descended below 60. During pregnancy the circulating fluid loses some of its albumen. Boequerel and Rodier found, as an average in pregnant women, 65 per 1,000. Dr. Hersent, in his inaugural thesis, states that in puerperal fever the albumen of the blood is less abundant than during health; we are inclined to attribute this circumstance not to the presence of parturition, but to the previous pregnancy.

Berzélius states that most accidental productions, such as tubercle, cancer, &c., although not completely constituted by albumen, are nearer akin to that immediate principle than to any other. We do not find, however, in the human species that cancer or tubercle causes any diminution of the natural albumen of the blood; in sheep, however, we remark a fact well worthy of attention: these animals occasionally die from the progress of dropsy, and in such cases the liver is found to be occupied by thousands of entozoa. In their urine no albumen can be detected, and yet the blood has lost a great portion of that which it ought to contain.

Intermittent fever, it is well known, often causes ascites, from a mechanical derangement of the abdominal circulation, due to enlargement of the spleen or liver: but in other cases it is not so: anasarca of the face and limbs, and peritoneal effusion appear after ague, no albumen being present in the urine. MM. Léonard and Follet have met in Africa with cases of the kind, which seldom occurs to us in Parisian hospitals, and found the albumen of the blood much diminished.

In granular kidney, a disease of which Dr. Bright has been the first to give an accurate description, the urine is loaded with albumen: and in the blood that substance falls to 50, 45, and even 42 per 1000.

When, therefore, during the course of any disease the albumen of the blood is found to descend below its average standard, the occurrence may be attributed to one of the circumstances above enumerated. Thus, during acute maladies, venesection and abstinence will often be the cause of diminution of that elementary principle, and this in the most different affections—in pneumonia as well as in typhoid fever. In chlorosis no diminution is observed; in anemia from hemorrhage the albumen falls to the lowest; in comparing the effects of diminution of fibrin, and of diminution of albumen in the blood, we find the former productive of hemorrhage, and the latter of dropsy.

*Globules.*—The average quantity of globules which our researches and those of M. Gavoust have shown to exist in the blood, is 127 in 1,000 parts. MM. Boequerel and Rodier find a somewhat larger number, 131. The extreme limits to which they may attain vary considerably from 60 to 21 per 1,000. Without departing from health, the globules may undergo a slight increase; M. Denis de Commercey states that he has found that from birth to the age of forty the globules present a steady augmentation, and an equally steady diminution from forty years forward. This remark, which is in accordance with the laws of physiology, cannot, however, be considered absolutely correct without further confirmation. Drs. Boequerel and Rodier mention a curious statistical result: on the average, the proportion of globules contained in the blood of women during the years of menstruation is higher than that found to exist after that function has ceased to be accomplished. A strong constitution, a sanguineous temperament, and nutritious diet, are circumstances which tend to produce an augmentation of the quantity of globulin in circulation. The same influence is also exercised by the exhibition of ferruginous preparations. A rapid glance over the statistical tables, in which the results of chemical analyses of the blood have been recorded, shows that the globules are increased in only one malady, or rather by a state of the constitution, which becomes a disease only when carried to excess; we refer to plethora: 135, 140, 150, per 1,000 globules in the blood are usually found when plethora is present; but neither the fibrin nor the albumen are in the least modified—a fresh proof of the perfect independence which the elements of the blood enjoy, in disease, with regard to each other. On taking the average of the



quantity of globules in a certain number of cases of pyrexia, eruptive fevers, &c., and in a series of cases of acute phlegmonous inflammation, the observer will be struck by the apparent increase of the globules in the former, and their diminution in the latter. But an attentive survey of the facts, and a close examination into each of them, will show that, if in pyrexia the globules are numerous, it is because these affections are almost exclusively confined to youth and maturity, whereas acute inflammation is common to all ages; it would be, besides, an error to suppose that a diminution of the globules would prevent acute disease; observation leads to this very different conclusion, that "poverty of blood is a predisposing cause to inflammations."

The diminution which the globules may undergo without the production of a morbid state is certainly considerable; when, however, the blood, instead of 127 parts in 1,000, contains only 100, perfect health cannot be said to exist; but when it contains less than 80 in 1,000, disease is present. A lymphatic or nervous temperament, abstinence from food, or impossibility of assimilation from organic change in the stomach, for instance, are causes which produce a diminution in the globules. In one case of cancer of the stomach, where nutrition had been for some time considerably interfered with by the anatomical changes of that viscus, we found only 42 per 1,000 of globules in the blood. In sheep, fed upon humid grass, a hydro-hemic state of the circulation being established, the blood, instead of 1-10 of its weights in globules, contained only 1-70. Venesection removes from the blood chiefly its globular element; hemorrhage, therefore, whether its cause be superabundant menstruation, hemorrhoidal discharges, or cancerous ulcerations, will considerably impoverish the circulation. In a woman, weakened by excessive hemorrhage from carcinoma uteri, we found the lowest amount of globules which we ever met with, viz., 21 in 1,000. In tubercular consumption the globules fall at the beginning of the disease to 120-110, or 100; but in the advanced stage they descend as low as 80. Dr. Ricord has shown that constitutional syphilis is also a cause of diminution of globules in the blood; and we find in pregnancy the average quantity of this element is much inferior to what it is when the uterus is unimpregnated. From the beginning of gestation to parturition they fall steadily, often down to 90; of course many exceptions exist to this rule, but still the occurrence is sufficiently general to warrant a far greater degree of circumspection in the use of the lancet during pregnancy than is usually employed. In those general morbid conditions of the system brought on by saturnine or marshy intoxication, the globules fall extremely; in one case of prolonged ague we found only 68. But the spontaneous diminution of the globules is characteristic of chlorosis; although it is undoubtedly far more common in women and in young girls, still it may also be observed in men; and we find the diminution of the globules extremely considerable in all descending sometimes to 60, and even to 50 and 40; nay, in two cases we found only 38 and 28 of globules in 1,000 parts of blood.

Of the other elements of the blood we may say generally, that this study is by no means so far advanced as that of the immediate principles already noticed; nor does the result of investigation hitherto seem to point to any very interesting conclusion. Thus, the colouring matter, hematin—*or*, as it is sometimes called, hematosine—is so closely allied to the globules, that it may be said to follow the same variations in quantity which they are submitted to by disease. With regard to fatty matter, that which is in combination with phosphorus has appeared to MM. Bocquerel and Rodier to become more abundant in impoverished blood, and during pregnancy. As to cholesterine, the authors above referred to believe, from their experiments, that its quantity increases with age. The statement may be correct, but we think that it deserves further confirmation. It would, also, according to the same experimentalists, increase in all acute diseases, with the exception of typhoid fever, in which the abundant diarrhoea, so common during the first stage of the malady, may be sup-

posed to remove a great portion of the substance in question. MM. Bocquerel and Rodier have also examined the blood in several cases of icterus, for the purpose of ascertaining what influence the disease might exert upon cholesterine, and they always found in the circulation a much larger amount of that immediate principle than is usually contained. M. Persoz, of Strasbourg, fed geese upon Indian corn only, and found that, at the same time that this nutriment causes "*foie gras*," it also occasions a very large quantity of fat to be held in suspension in the blood, sufficiently, indeed, to render the serum lactescent; the serum of the blood is also almost entirely deprived of its albumen.

The inorganic principles contained in the blood are very numerous. Iron, always associated to the globules, hitherto appeared to be in constant proportion with the amount of corpuscles, but recent facts seem to point to a different conclusion. Our experiments on this matter are, however, too few in number to permit us to do more than merely to put you upon your guard against an opinion which everything hitherto appeared to demonstrate. As to the salts, Vogel says, "It seems that changes in the amount of the saline compounds to be found in the blood are very frequent, and have important pathological consequences." This phrase of Vogel implies that researches have been made on this subject, and that results have been obtained. We have vainly sought for them, and do not think that the present state of the science of hematology warrants such an assertion; for instance, the alkaline salts have been said to increase in the blood in cases of scorbutic disease, on the strength of one case of M. Denis, and of another belonging to M. Fremy; we have found the same increase in many other diseases, so different from each other in their nature as not to permit us to attach any importance to a circumstance which we believe to have been purely accidental. When the subcarbonate of soda is injected into the veins the blood loses the property of coagulation, and the same occurs when the salt is mixed with the blood in an open vase. This remarkable loss of plasticity may, to a certain extent, account for the tendency to hemorrhage and to congestion, but we must be very guarded in adopting anything in the shape of a theory, however plausible it may seem; thus, we cannot give our unqualified assent to the following ingenious theory, brought forward for the purpose of explaining the phenomena of scurvy. The destruction of the fibrin and the increase of the alkaline salts of the serum admitted, the density of that fluid is supposed to increase, and, by exosmosis, the globules to be gradually emptied and shrivelled up; hence extravasation and hemorrhage. Again, in acute disorders the alkaline salts are asserted to diminish in quantity, causing at the same time a fall in the density of the serum, and consequent endosmosis into the globules; hence enlargement of these bodies, obstruction of the capillary vessels, and a mechanical cause to inflammation. These are idle theories, resting upon pure hypothesis, and we must, therefore, set them aside for the sober contemplation of facts. In cholera, the blood has been the object of careful research, and has been found when exposed to air to retain its dark venous colour, and not to be spontaneously coagulable: two characters which are pre-eminently possessed by blood deprived of its alkaline salts. It was natural to suppose that in cholera the abundant evacuations which usher in the symptoms removed from the circulation its alkaline elements, thus leaving in the vessels a fluid incapable of being arterialized in the lungs, and, while being conveyed to the viscera, would bring on the symptoms of general asphyxia, observed in those persons who are deprived of the air necessary to the performance of the respiratory functions. The theory is plausible, and as a theory we do not object to it.

In diseases most widely differing from each other in their nature, we have found the same quantity of saline principles in the blood. Their average amount is between 7 and 8 parts in 1,000. They may increase as far as 9, or fall as low as 5, but these are the extreme limits of variation. Age, sex, abstinence from food, do not exercise any ap-

preciable influence upon these numerical results. Thus, we found, in 13 cases of pneumonia—once 4, 5 per 1,000; eleven times, 3-9; and once, 2-9; in acute rheumatism, 5 and 4; in peritonitis, 4; in metritis, 4-9; in typhoid fever, 4 and 3; in granular kidney, 5, 4, and 3; in diabetes, 4; in cirrhosis, 6-9, &c.: in a word, the variations are so trifling and so irregular as not to present any fixed data by which the influence of disease can be deduced: the same thing may be said of the phosphate of lime contained in the blood. The water of the blood is very abundant; the average is 790 parts in 1,000; the minimum, 725; and the maximum, 915; the solid parts forming altogether an average of 210 parts in 1,000.

#### HOSPITAL NECKER.

CLINICAL MEDICINE, BY PROF. TROUSSEAU.

PERITONITIS AND ERYSIPELAS.—Some days since a woman was admitted into our wards. She had been recently confined, and was labouring under some vague uterine symptoms; the child was weak and puny, but still took its food with appetite, when the night before last, after having been fed, and being to all appearances better than ever, a sudden collapse took place, and yesterday morning we found the belly swollen, and faint traces of erysipelas on the lower part of the skin of the abdomen. We diagnosed from the collapse the presence of spontaneous peritonitis. The child died in the course of the day, and you see before you the anatomical proofs of the correctness of the diagnosis. The erysipelas which has been fatal to this infant is by no means an uncommon affection; at the age of the present subject it is invariably mortal, and therefore, when you meet with it during the first month of life—even in the absence of any febrile symptoms—of any cerebral, abdominal, or morbid manifestations, do not hesitate to give the most unfavourable prognosis. I have seen an immense number of cases, and I have observed only two instances of recovery during the first month; the duration may vary between twenty-four hours and ten or eleven days: but, where sudden collapse and rapid death occur, you may safely assert the existence of peritonitis. The subject is of sufficient importance to warrant our returning to it, at some length, on another occasion.

#### ANATOMY OF PNEUMONIA IN INFANTS.

In children we never observe genuine pneumonia, but a catarrhal or spurious inflammation of the lung, always preceded by capillary bronchitis. Catarrh pre-exists, accompanies, and often survives their pneumonia, giving to its progress, duration, or return peculiar characters which distinguish it from the same disease in the adult. The first form which we meet with is one in which numerous isolated nodi present well-circumscribed indurations in the inferior and middle lobes of the respiratory viscera; this is the lobular-disseminated pneumonia;—in another variation the nodi are larger, and equal in size to small almonds or hazelnuts, constituting the pneumonia lobularis agminata. In a third shape, pneumonia lobularis pseudolobaris, the largest indurations unite, and occupy the greater part of a lobe, thus simulating true pneumonia of the adult, from which it is different in this respect, that the inflamed mass is formed of lobules which have become the seat of inflammation at successive and irregular periods, and which, therefore, present, in their mottled granitic aspect, shades of colour by which the various epochs of successive inflammation can be more or less accurately judged. As to the real lobar-pneumonia, it is extremely rare in children. In the adult, during the progress of acute pulmonary inflammation, you will observe, from day to day, the expectoration change in colour from a rusty brown to a citrine hue, and again to a dark shade; on dissection, in such cases, you will find the lung at various stages of inflammation, and, by the difference of colour of the several parts of the viscus, you will be enabled to account for the changes observed previously in the expectoration, by the daily and progressive invasion of phlogosis. You will find in the same lobe yellowish portions infiltrated with pus, in immediate contact with parts in a state of red hepatization, from which they are distin-



guished by a sudden change of colour, almost without transition. Again, in the immediate vicinity, you will find simple congestion, and even apoplectic nuclei, well characterized by their special hue. The lung of the adult is, therefore, inflamed *en masse*; all its elements are at the same time the seat of anatomical changes. It is not so in the infant: the lungs of the child are affected in detail, and the lobules, being separately diseased, give to the section the granitic aspect noticed above, and which we have attempted to explain. On the surface of the division you will occasionally observe numerous drops of pus issuing from what appears to be dilated bronchi, but in reality from little abscesses resulting from the destruction of lobules in a state of suppuration. These are real vomicae, which are as common in childhood as they are rare in the adult. On the margin of the diseased lung we also sometimes find transparent yellowish spots, of the consistency of jelly, and resembling, in colour, the agate or carnelian stone; in these spots hardly any trace of parenchyma is discernible, and when thrown into the water they sink to the bottom. The foetal state, to which MM. Legendre and Bailly have lately directed their attention, appears to us to have received an undue degree of importance. We cannot believe that this state continues so late as the tenth or twelfth year—a period too far removed from birth to permit the production of the *état foetal* by the very simple mechanism pointed out by the authors.

During pneumonia in the adult, the pleurae always, or almost always, participate in the inflammation; and false membranes are very generally met with on the surface of the diseased lung. In infancy, on the contrary, this complication is extremely rare; it is equally uncommon in the aged, on account of the catarrhal nature of the malady at both these extreme periods of human life. The bronchi are usually found red and inflamed, their mucous membrane thickened, and slight dilatations as after whooping-cough; accidentally, even small lacerations may be seen on their surface. The lymphatic ganglia are also frequently the seat of tumefaction, and complete the series of anatomical changes which are produced in the respiratory viscera of children by the presence of pneumonia.

D. M'CARTHY, D.M.P.

#### TO CORRESPONDENTS.

*THE MEDICAL TIMES* is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrac, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

A Subscriber.—The following case is proposed for our decision:—A, B, C, and D, are general practitioners, residing in the same town on friendly terms, and in the habit of seeing patients for each other occasionally. C is taken ill, and confined to bed some weeks, A and B attend him. A, B, and D are sent for by various patients during C's illness, unknown to C, but on his recovery give up all these cases to him, while D refuses to do so; although he is fully aware that the patients employed him in consequence of the illness of C. Is D acting properly or not?—Our decision is, that D is acting in a most ungenerous and unjust manner to his friend and fellow-practitioner; he is taking every advantage of his misfortune. Had he not been on friendly terms with C he would

have been perfectly justified in retaining all such cases.

An Assistant of Mr. Maddock, when in Judd-street.—We published the account alluded to on what we still believe to be good authority, and we cannot enter into the private circumstances of physicians.

Q.—We would recommend Towne's "Manual of Chemistry," Dr. Forbes Royle's "Manual of Materia Medica," Carpenter's "Manual of Physiology," Herschel's "Astronomy," in "Lardner's Cyclopaedia," Dr. Golding Bird's "Manual of Natural Philosophy," and perhaps Dr. Watson's "Practice of Physic."

M. H.—The evidence will be most acceptable.

D. H.—The lectures will be concluded. The excellent practical course of Mr. Startin were completed in the first volume.

A Friend's attack on a contemporary must be declined. Except as public events arise, we hope to recur no more to so repulsive a text.

## THE MEDICAL TIMES.

SATURDAY, DECEMBER 26, 1846.

### OUR CHRISTMAS-BOX.

THE impetus of youth tends as by an instinct to the FUTURE; and the *Medical Times*, forgetting its watchword "ONWARDS," would be scarcely less commonplace than its older neighbours. Yet for once we must be pardoned if we lapse into the foible of age, and give to a retrospect of the past what usually we allocate to the present and the coming. In parting with the year we feel as though separating from an old friend, and, casting a longing, lingering look behind, naturally recal (with, perhaps, a pardonable egotism) the incidents which have thrown a charm or a usefulness over the closing relationship.

When the *Medical Times*, after a period of unhappy management, fell to our charge, now five years since, the profession did not stand in the same position as now, in reference either to their internal organization, their journals, or their legislature.

The bills of Messrs. Warburton and Hawes had just found in the Commons a world unsuited to them, and had aborted in rapid succession. The British Medical Association had lost its use, and was entering on its phantom period of existence, amid the contests of a Hall, a Webster, and a Grant, for the official dignities of a "Faculty" not yet emerged from the clouds. The Provincial Association had just assumed the position which was to make it a "cold obstruction" to all rational progress, and a dead weight on all professional activity. The medical horizon was lustreless, cheerless, hopeless. We looked to the House of Commons—we were without a voice; we turned to our journals—we had, instead of an organ, a versatile jackpudding or venerable gossip. Medical reform, the echo of a real want—having no more respectable exponents than a Wakley here or a Webster there, a *Lancet* in the quarter of progress, and a *Medical Gazette* in the quarter of resistance—stood as an unclean thing in the eyes of all decent people, and there was neither a profession to support nor a Parliament to tolerate it.

We could wish our readers, turning back to our pages of those days, saw the character of the labours we then commenced to dedicate to their cause. We stripped Medical Reform of the filthy garments that for years had been allowed to surround and disguise her, and, presenting her in her native purity and loveliness, robed in the classic draperies that became her exalted mission, we asked a votary for her in every honest and educated mind. Our reiterated appeals were not thrown away: the bodiless delusion—the British Medical Association—vanished in thin air; the profession awakened; the prospect brightened; a moment came when all shared our convictions. At length, ripe for action, the best part of success—desert—had been achieved.

The College of Surgeons, unable longer to bear the pressure of public opinion, virtually succumbed. Change had become inevitable, but, to make it *least* useful to us, their ingenuity turned it into an instrument for divisions. Their reform was but the purchase of our best men by proffered shares (the fellowships) of corporate booty. An increase of councillors, the creation of a body-guard of 300—not such as fell at Thermopylae—was their ingenious device. A measure disastrous as iniquitous, the name of "Reform" did not disguise to us the deformity of the new Charter, and we kept our hands clear of the responsibility. We alone, of all the press, denounced it in design, and condemned it in execution. The person Wakley—at that time editing a contemporary—was silent before the Charter, though forewarned of it; and silent when it was conceded—though advised of it. Nay, he chose the auspicious moment for incurring the obligation to Graham, its author, of a brother's assigneeship of bankruptcy. The professional calamity secured his family an appointment of thousands per annum. With that sedative—a professional outrage ceased to be provocative, and Cerberus was silent! At that critical moment of outrage and treachery, we alone, we repeat it, were true to our principles. The profession, already organized mentally—a word was all that was necessary to bring them into concentrated action. We spoke that word. We called into being the Medical Protection Association, with what success let others describe. Thus has a writer depicted our work:—

"Last came the Medical Protection Association. I saw with wonderment how suddenly, in power, and wealth, and wisdom, this young Society, obeying your call, sprung to being. It was born a man; it sprung, as from the brain of Jove, another Minerva, instinct with might and beauty. A multitudinous meeting, at three days' call, startled British Medicine from her seat, and the world asked what shall it be—this new-born giant? Surgeons and Physicians,—the proudest,—bent their steps towards the threshold; the new popular shrine offered more promise than the old corporate idols: funds flowed in: prosperity, for once, in medical agitation, seemed our captive; but Wakley crept into the paradise, and

at the ear of Eve, familiar toad,  
Half froth, half venom, spit himself abroad."

Let us draw, in charity, a veil over the dark and saddening scene of treachery and dishonour. All is told, when we say that we had a new British Medical Association, with lower elements, under a new name. We faithfully laid



bare its character. It was enough: after the usual tedious series of false pretences, published and exhausted, it perished. One unhonoured tomb holds the remains of it, and of the British Medical Association, and the British College of Medicine, and some half dozen other juggles with the same unhappy parentage.

If, on the one hand, we have thus had to lay, once and for ever, the perturbed and perturbing spirits of these phantom things, so dishonouring to our calling; on the other, we have had to defend and support and uphold a large practical confederation, full of promise for medical interests. The National Association and Institute, after belying suspicion and outliving distrust, were assailed, on personal grounds, with calumnies and vituperations, which, from the most equivocal of quarters, might yet have done mischief. There was a crusade of attack preached up; plots were made; semi-public meetings held; concocted reports foisted on the journals; sham associations and committees and public breakfasts got up; a campaign of unprincipled action commenced and carried on. What did we? We laid bare the conspiracy, and unveiled the actors. We did more; but we need not. The profession was at once taught to see—to appreciate—to crush the infamous conspiracy. Need we add, that the Association and Institute came out unscathed from the furnace; or that they still exist in more than primal strength and public influence; or that they offer even stronger guarantees on the one side to resist further aggression, and on the other to secure—either from the Government or the country—a final and fair arbitration of rights?

Manifold and grave as have been the changes worked in all the departments of medical politics, still more manifold, though not perhaps so grave, have been the vicissitudes we have introduced in medical journalism. The changes in the wizard's cap of many forms and uses are less numerous than those we have calmly witnessed in two of our contemporaries. The "sickly green," no less than the "sear and yellow leaf," "your true motley"—time-honoured, and consecrated to many a dull or malicious saying, have disappeared, alas, for ever! Never, never more, will "the yellow fungus" or milder "excrecence" close the eye of opiate-defying vigilance, or regale that of curious malice, or appal those of timid virtue! The thick-coming shilling numbers too—where are they? Gone, never, never to return! Yes, we have seen contemporaries, whilom so insolent and unyielding, change their coats and local habitations, and be glad to bruit abroad in every column known to "Manly Vigour" and "Secret Friends," their humble and anxious offer to reduce their price "considerably," to enlarge their size "more than one-half," and desperately try what good chemistry—as some would alchemy—might do their fortunes. We have seen all this not only promised, but done; we have seen price reduced—size enlarged—chemistry essayed—and, alas, NO SUCCESS; and we have waited and we have seen the reduced price raised, and the enlarged size cut down, and the chemistry abandoned midway, and still NO SUCCESS. But we forbear: this rapid retrospect

of the mutations evoked by the potency of our spell—this explanation why some journals can only exist, like a quack medicine, by incessant advertisements—will suffice to remind our readers of a fact they should not forget, that our labours have modified for them the whole face not less of British medical journalism than of British medical politics, and that we can stand before their tribunal fortified not only by our own merits, but even by those of our enemies.

Did space permit we would advert to another of our innovations—not yet imitated, we regret to say—the gift of prizes to medical students. During the last year we thus distributed £50: we shall not do less during the present year; and if the sum itself, £100, be not large, taking the form of a repayment, yet, in the shape of an honourable testimonial to merit, we have seen it become to hundreds of students a useful stimulus to hospital attendance and study.

To this aid to the progress of medical science we have added the sum of one hundred and fifty pounds to the purity of medical politics. With that fearlessness and indifference to sordid considerations which will always be found the characteristic of the *Medical Times*, we did not hesitate to publish that celebrated letter of VINDICATOR, which urged, with a power of argumentation that ought to have been irresistible, the submission of a contemporary's character to the verdict of a "*Court Medical*." He "took the law of us" in this small "affair of honour"; he played the informer on us for asking this "little explanation," and aided by that curious anomaly, our libel jurisprudence, he extorted the fine—not the two thousand sovereigns he asked, but a hundred and fifty. A member of Parliament, a County Coroner, exacting on legal informations more than a hundred guineas from a brother journalist (for wishing that a character were better to do in the world) suggests the query, What did he with the money so curiously acquired? Give it to public charity? No. Devote it—as we our own honestly-got remainder—to professional prizes? No. What then? He lived on it! Our cash—so got—kept up his household! Did he startle his tailor by a settlement? We paid it. Was his victualling department sometimes supplied even to a guest? We stocked it! Did he exhibit to his brother members an occasional clean shirt? We cleared the laundress! For twelve months, in short, this M.P. for Finsbury, this Coroner for Middlesex, this Proprietor of the *Lancet* was the pauper—the legalized pauper—of the MEDICAL TIMES!

But this is a reminiscence of a matter almost beneath mention. That conflict, however costly, involved but the contemptible query, Is this person's character worth, or not, one atom of public confidence. We have now, however, a contest with him which gives even his insignificance importance, and involves principles of paramount moment to the whole medical profession. We are going to test, in his person, in the face of the whole country, and before the highest judge in the land, the great question whether coroners may, as they list, peril or sacrifice, from personal caprice or political aggrandizement, the liberty, the repute, and

the peace of mind of honourable and worthy practitioners. Ought this test to be applied?—ought this great labour to be done? The whole profession has but one reply. Well, then, who was there but ourselves to do it? We have not shrunk from the enforced responsibility. We have made the contest inevitable, and holding the right we shall vindicate it at all hazards, and at all odds. We never had less fear for a result: we pledge ourselves to our readers for a complete triumph—the very least effect of which will be the removal of a professional affliction less calamitous even than disgraceful.

And here let us declare, once for all, that we do not descend to the low morality of entertaining hate, or malice, or uncharitableness against this unfortunate individual. His name oft fouls the Profession's tongue, because his snares oft waylay the Profession's path. There is about him a desperate, untiring tenacity of public obstruction. He is the Wilkes of medical politics, who will incessantly rise to the dignity of a virtuous reprobation. Individually there is no kindness, no pity, we would withhold from him. It is true, he has publicly declared that we are "the man of all the world he hates the most," and that he "will ruin us, if it cost him a thousand pounds"; but we can sincerely say, we reciprocate no such feelings. We sorrow as we strike, and pity as we condemn: a stern duty extorts a reprobation we deplore as we give; and virtue could give us no greater boon than the liberty honestly to be silent. Did we love the public good less, we would have spared both him and ourselves more.

We conclude our hurried attempt at a retrospect, by the natural suggestion that, if our readers think we have served them and the profession right honestly and well, they will exercise their influence, at this favourable season, in extending our empire and widening the sphere of our usefulness. Allegiance and protection, we are told, are correlative obligations; and if for long years past—and never more than now—we have shown vigilance, energy, and promptitude in guarding every interest of the profession, we may not unreasonably look forward to the continuance and diffusion of that loyal attachment and support on which all our powers of usefulness depend.

#### MESSRS. LONGMAN AND CO. AGAINST THE MEDICAL TIMES.

SOME time ago we published a threat of Chancery proceedings from the pen of Messrs Longman and Co., unless we gave them compensation for the injury we had done their journal, the *Medical Gazette*. That journal, according to their statement, had been ruined, or something like it, by our notice of its contents. With our customary impartiality, we published their letter—laughed at it—and supposed "there an end." Messrs. Longman and Co., however, thought otherwise; and, after a series of delays, brought their complaint before the Vice-Chancellor of England, this day (Wednesday),



in the shape of a prayer for an injunction against the *Medical Times*.

The VICE-CHANCELLOR PEREMPTORILY REFUSED THE APPLICATION. We shall give in our next the report of this, the first in the series of our legal triumphs.

The *Medical Times* for 1847 will contain the following courses of lectures:—

1. A Short Course of Lectures on some important points of Surgery, by R. Fergusson, Esq., F.R.S.E., Professor of Surgery to King's College, and Surgeon to King's College Hospital.

2. A Course of Surgery, by S. Cooper, Esq., F.R.S., Professor of Surgery to University College, and the President of the College of Surgeons, &c.

3. A Course of Lectures, Chemical and General, by Dr. Corrigan, of Dublin.

The Lectures of Dr. Wright, Dumas, and Sir Benjamin Brodie will also be continued.

Other courses of lectures and papers are also in preparation, and will be speedily announced.

## MISCELLANEOUS CORRESPONDENCE.

### OPERATIONS WITHOUT PAIN.

We have been informed that two operations were performed by Mr. Liston, at University College Hospital, on Saturday last, while the patients were under the stupifying influence of vapour of ether. The one was amputation of the leg, the other evulsion of the nail of the great toe. The vapour of ether was inhaled by means of a proper apparatus, and, when it had produced its full effect, the operation was speedily performed. Neither of the patients knew, when they recovered from their stupor, that the operation had been performed. Mr. Liston observed that the vapour of ether had been used for a similar purpose in America, but only in minor operations, such as the removal of tumours, &c. We hope to have further particulars on this very interesting subject.

### MEDICAL LEGISLATION.

[To the Editor of the *Medical Times*.]

"Sapere aude:  
Incipe. Vivendi rectè qui prorogat horam,  
Rusticus expectat dum defuait amnis; at ille  
Labitur et labetur in omne volubilis ævum."

HORACE.

SIR,—The existence of a code of laws enacted with no other view than that of promoting the welfare of the subject, and, upon the whole, calculated to effect the object contemplated, shows in a most decided manner that both rulers and people have elevated themselves to a lofty station amongst civilized nations. We have only to consult the page of history to learn that the conduct of a government has an irresistible influence upon the moral and physical condition of a people. True it is that there is in general a reciprocal action between the two, when the multitude has acquired sufficient power to give utterance to their wants, the rulers listening with an attentive ear and lending a helping hand. The ancient nations who acquired political greatness in the days gone by, but whose influence is still felt in these modern times, were remarkable for the enlightened views they had of the science of government. As wise counsellors formed and directed the machinery of the state, so there was a prosperous and happy people—a courageous and invincible army; but, as unskilful and selfish men occupied their places, every order degenerated till they were involved in one common ruin. A knowledge of the past is useful to us, as it adds to our stock of experience, thus teaching us how to avoid, in the best manner, that which may hinder our welfare, or how to follow that which may promote it. Thus it becomes every true patriot to study

closely the political economy of those nations which have made a figure in the world, in order that he may learn from the best models, and imitate the most worthy examples.

These remarks will apply not only to national but corporate legislators. The latter, we know, occupy a position less elevated and responsible than the former, yet one in which they may exercise a powerful influence for good or evil. They are intrusted by the state with a stewardship, which, if exercised fraudulently or tyrannically, will, sooner or later, be visited with severe penalties. And yet corporate bodies oftentimes present to our notice the vices of government in their worst forms. These petty kings, invested with the purple of office, seem to forget that they have any other functions to discharge than those of taking care of themselves. In the cloisters of private life they walk circumspectly, exemplify, it may be, every social virtue; but, when, summoned by their brethren to the public duties of office, too frequently have they to lament that what they admire is left at home. But we write not in judgment upon corporations without the pale of our own profession. The learned legislators of the medical commonwealth we must weigh in the balances, not of their own opinion, but in those of inflexible justice, which will show they are sadly wanting.

It is a melancholy reflection that, in the nineteenth century, men of science should be accused of ignorance and selfishness in the matter of professional legislation; that grave doctors, whom universities have nourished, and pure surgeons, whom kings have delighted to honour, should apparently forget that, as professional senators, they are to rule for the people's good—the thousands whose professional welfare and happiness are placed under their superintending care; that they should set at naught all past experience furnished them through the page of history, with which they ought to be as familiar as the schoolboy with his books, and send forth such a code of medical enactments as makes the physicians of the poor, with regard to corporate rights, wanderers upon the face of the earth. It is this of which they so justly and so frequently complain. The wealth and power of the colleges emanate from them; and to their mortification they see the most valuable gifts employed to repress their energies, while they promote the ambitious feelings of a chosen few. Selfishness has shortened the moral vision and blunted the moral sense of these collegial legislators, that they cannot see any interests worthy of regard but their own, or room for the exercise of any virtue but towards themselves. They have never yet learned the first truth of the Aristotelean philosophy, or, if they have, they have put upon it an interpretation which the illustrious teacher never contemplated. And can we wonder when we look at the evil constitution through which they have obtained the supremacy? Self-elected as some are, and enveloped in their own greatness, more impregnable than triple brass, as others are, the lofty motives of patriotism and benevolence could hardly be expected to find a place amongst them. It is high time for men to be enlightened in the science of medical legislation, and to bring into action those energies which, wisely employed, will make our profession what humanity requires it should be—truthful, liberal, and benign. It is, indeed, no enviable work to bring the faults of public bodies before the public eye; even those whose benefit is intended, too frequently misjudge the motives, while the sinners, pricked in conscience, and fearful lest a righteous sentence should be pronounced upon them, would, if possible, send to the lowest depths of Tartarus the daring accuser. We crave, then, most high and mighty counsellors, your forgiveness, while we are compelled to speak of your delinquencies, and we will make allowance for your feelings when, finding your craft of unwholesome lawmaking in danger, you cry with one heart and one voice—"Great is Diana of the Ephesians," like Demetrius and his fellow-workmen.

In taking up a subject like the one now in hand, the great difficulty appears to be to tell where to begin. The collegiate senators have been transgressors from their youth upward until now; and every year which they can count in their existence

has added to the number of their sins. Divines tell us that we enter the world with a bias to that which is evil—that our nature is so depraved that we may as well expect to gather grapes from thorns and figs from thistles, as virtuous actions from an undisciplined mind. It is just so with our collegiate bodies: they are depraved in constitution, and their volitions mark infallibly, as much as corrupt streams a polluted fountain, this humbling truth. We will not, however, disturb the musty records of our corporations, but leave them to their quiet repose in "the old oak chests" where we wish them to remain till, time-worn and worm-eaten, the only vestiges of their former existence shall be dust. One specimen of lawmaking within the last two years is enough for our purpose—a baby which was begotten by the worthy Solons of the Corporation of Surgeons, Lincoln's-inn Fields, and ditto of Physicians of Pall-mall, but fathered upon the Right Hon. the Secretary of State, Home Department, Whitehall, and which said baby, after a very tedious passage into this world, was strangled at the birth. This is such a capital specimen, Mr. Editor, that every general practitioner throughout the kingdom should get a cast, and give it a very prominent place in his museum, and carefully label it underneath with the old quotation from Virgil, "*Ex uno disce omnes*," which for the benefit of the unlearned he may translate, "A chip off the old block." As there has been a false conception since the above interesting event, it is no work of supererogation to keep our medical brethren wide awake, and to direct their attention to certain parties, whom they have good reasons to suspect, for who knows but that there may be another *παῖς ἐν γαστρὶ*, which will deserve the same fate as its predecessor. Things look rather ominous when we hear of Sir B. Brodie and Mr. Guthrie having interviews with Sir G. Grey, at the Home-office, and you may well ask, Mr. Editor, "What is coming?"

Let us look, then, particularly, at medical legislation as exhibited in the precious bill sent up to the Imperial Parliament, in order that it might become law; and what do we see? Why, the grossest ignorance manifested—ignorance of the condition, the wants, and the feelings of the thousands in our profession. This is but a specimen of what had been done before; the rulers had whipped, spurred, and goaded the general practitioner till they thought he had not an atom of pluck left, and then, merciful gentlemen, by one more effort, they made sure of finishing him. Only think of the red gowns and the black gowns popping forward the Home Secretary as spokesman, and telling us medical plebeians that the Apothecaries' Act was a very silly thing—that protection was mere fudge—that quackery was only a bugbear—and that, in order for to attain a right *status*, we should register as licentiates of surgery—exercise such an expansive benevolence as to admit as competitors all the unlawful practitioners, from the mountebank in sock and buskin, who vends his nostrums in the market-place, up to the black-coated charlatan, who is admitted into the mansions of the great, and makes no bones of turning "old women into young." It is evident from the bill that the framers of it imagined the general practitioners a community of snobs; but they were ignorant, wilfully ignorant, of the wonder-working power of the Act of 1815, which, in its administration, had brought glory to "the company" and salvation to the profession. Young intellect had grown strong under their fostering care, unseen by the great ones in high places, when a daring effort for its destruction was attempted. It rose in the greatness of injured majesty, and showed that, though it had been long insulted, it could yet assert and maintain its rights. The ignorance manifested about the masses of the medical profession, by certain parties, was doubtless assumed, but it suited their purpose to legislate as if "they only were the people, and that wisdom would die with them"; and, taking this for granted, they urged the supreme Executive to pass such a bill as would make the objects of their envy "bite the dust." But while these lawmakers would not see the real condition of the profession, they could not see the feelings which would be brought into exercise. The bill struck home to the hearts of the



majority; and, though it was intended as a grand effort to crush them, by a singular working of Providence it was the means of calling into action energies which had been long dormant. They felt themselves insulted and betrayed, and by those very men whom they had been taught to consider as their real friends. And to whom could the injured ones run for help? Why, they knew not; and the startling truth flashed across their minds—that God helps those who help themselves; and to work they went—combined, resisted, and firmly resolved that, if they were to perish, it should be with harness on their backs. The efforts made showed what real bottom could do: the enemy was brought to a stand; and, while he was chuckling with the prospect of an easy conquest, found the fortune of the day turning, and himself compelled to act upon the defensive.

These medical legislators have not only acted as if they were ignorant of the condition and wants of the profession, but the tendency of their laws has been to injure the individuals whom it was supposed were to be benefited. Once upon a time, the Licentiates of the College of Physicians, if they had not been favoured with a university education, were for ever to remain "permissi"—medical non-descripts, allowed to write prescriptions and receive fees, but to keep outside the bar of the honourable house. Of this number was the illustrious Armstrong, who deeply felt the injurious nature of the restriction, and, in his celebrated lecture on Typhus, used emphatically to say, "that too frequently, universities and colleges, established for the express purpose of fostering science, were found to produce a contrary effect." The new College of Downing, and the pretty little Addenbrook Hospital at Cambridge, were, doubtless, nice nurseries for some very fine fellows, whom the old stagers amongst the licentiates must have greatly revered. The College of Surgeons would have the members labour under no mistake in reference to their rules and regulations—they were to keep the intellect and the pocket of the said members at zero, which is expressed by 0; and, as they stood for nothing in the estimation of the rulers, so they wished them to stand for nothing in the estimation of the public. "Ordinary exigencies of surgery"—what a freezing mixture!! And then the fellowship!

But the bill "for the better regulating the Medical Profession" was the grand effort of the "pures" to get all the patients worth having into their own hands. The hook was well baited, and there was such strong nibbling when first let down that the cunning anglers made sure of a speedy and powerful bite. Some crafty old sturgeons, however, took the alarm, and so frightened the entire shoal that, with all the stratagems that could be employed, it was found the bait would not take. And we have reason to thank our stars that the bill never became law, for, if it had, then must the surgeons in general practice have eventually, as a body, been ruined. With the penal clause of the Apothecaries' Act annihilated—the door opened sufficiently wide to admit any one who chose to exercise the healing art—degradation and destruction must certainly have followed. Flourishing schools would have languished, medical education have become a by-word, and, the present race of practitioners removed to their long home, a new generation would have arisen to prey upon the public purse, at the expense of the public health—jackals to the medical and surgical lions of a pure breed. Even now the question has been raised whether medicine is entitled to rank as a science: left to the tender mercies of the learned Thebans who concocted the rejected bill, every shadow of doubt would vanish in our country, for the "virgin would be slain in her high places."

We are compelled to note also that, in medical legislation, selfishness is most abundantly developed. The lawmakers would rule for their own personal advantage, and not for the welfare of the professional community. In Surgeons' Hall the powers *did* elect one another; and, therefore, who would wonder if their enactments were all in favour of themselves? Once they tried to shut up provincial hospitals as schools for the rising generation of our profession; country knowledge being prohibited from passing current with the Court of

Examiners in the metropolis. And why was this? Because they felt that self-preservation is the first law of Nature, and they would take care of themselves, and their friends, being hospital functionaries or teachers in medical academies. We had almost forgotten to mention that it seemed as if special regard was had, in clearing provincial schools, to a very important body of men—the *Worshipful Company of Body-snatchers*. It brought such a thriving business amongst these renowned worthies, that the price of their commodity doubled in a very short time, and it was found at last that the public could not die fast enough, and, therefore, a new process was invented to send, clandestinely, souls to Hades, and bodies to the dissecting-room; which process was technically called "BURKING."

The effort of 1844, on behalf of medical men, was merely a further development of the ruling passion—a supreme regard of self. The Board of Health was to consist of Regius Professors of Universities, Presidents and Censors of Colleges, &c., but a general practitioner was never mentioned. He was a sort of being only fit to be ruled, and too plebeian in his constitution to merit any further notice than that of contempt. And yet there were college emissaries abroad to urge these insulted ones to express gratitude for repeated smittings, and some, with all meekness and humility, did. We say this, not in disparagement of their feelings, for with many, probably, they were of too pure a kind to suspect an attempt at their destruction under the mask of good intentions. Had there been none to step forward to rescue, these unsuspecting ones would have suffered the same fate as those deluded votaries of olden time, who embraced the automaton figure of the philosopher's wife, only to be crushed to death in her embrace.

The picture which the past offers to our view is one in which the darker shades predominate, and, as we contemplate it, the most melancholy reflections occupy the mind. Who does not fervently wish that names illustrious in the records of science should have acquired additional renown by a virtuous use of that power which the Imperial Government committed to their trust—that the members of our profession might have looked to them as their real benefactors, under the shadow of whose wings they might securely repose? Such happiness it has not been our lot to enjoy. The Colleges appear unsound at heart; and had it not been for another corporate power, to all intents and purposes a medical college without the name, we might have been suffering with far greater intensity, from their morbid operations.

Medical legislation cannot be what it has been—for the advantage of the few to the injury of the many. When enlightened minds, fortified by severe discipline, bring their energies into action, the champions of corrupt systems quail before them. A righteous cause will ever nerve its advocates with courage, and, truth being their buckler, the shafts directed against them will fall harmless at their feet. The cause, the advocates, the shield, we have—guarantees of a new dynasty adapted to the wants and wishes of the medical community. Behold, then, the voice of the people choosing the "patres conscripti"; their deliberations based upon knowledge, and directed by wisdom; their laws founded in equity; the rulers and the ruled, a social band, united by the ties of affection, and recognising no other distinctions than those to which mind is entitled. This is neither a freak of the imagination nor a flourish of the pen, but what may yet be realized, and the first-fruits of which may now be gathered in the National Institute of Medicine and Surgery. It has been brought into existence by the stern necessities of the profession: born in troublous times, its fate may be to be nourished in adversity; yet this will only strengthen its powers, and make doubly sure its future greatness. In this manner was fostered the "Eternal City"—which from a few cottages rose to be the mistress of the nations, and the lawgiver of the world. In the Institute, laws are to be enacted for the advancement of science, for the protection and encouragement of its members, for the benefit of the community at large; and thus it will secure the respect and confidence of all classes in the body

politic. And this is what is required—the consummation devoutly to be wished for, and which, judging from past experience, we are not to expect from the older colleges. Too stiff in their dignity, they cannot bend; and too secure in their fastnesses, the spirit of slumber has closed their eyes that they cannot see. In their dreamy slumbers, it may be, they will laugh to scorn the infantile struggles of the newborn stranger; yet who can tell but that in riper years it may stretch forth its hand to save them from utter destruction. If men wish to be "pures" let them be pures; if they wish to be physicians, let them be physicians, after they have entered one common portal, and have proved themselves worthy of the exalted station to which they aspire. With minds fortified by a sound education, and enriched by experience, they will receive the veneration of their fellow-labourers in the same field; while they will carry with them the best blessings to alleviate the sufferings of afflicted humanity. The profession, thus renovated, will resemble a new world, in which the sun will shine with the brilliance of meridian splendour, and by its purifying influence the clouds of error will be for ever scattered.

I remain, Sir, yours obediently,  
Dec. 12. FILIUS ESCULAPII.

### THE COUNTRY PRACTITIONER.

[To the Editor of the Medical Times.]

Amongst all the industrious and laborious classes of useful men in this kingdom, the country medical practitioner takes the highest rank, not *ex officio*, but for his active benevolence and philanthropy. Where is the man in any profession or trade who does so much with so little prospect of even moderate remuneration? His toils are those both of body and mind, with constantly the greatest responsibilities which any human being can have imposed individually—the lives of his fellow-creatures. Upon his knowledge, decision, and firmness, in the time of need, hangs the valuable life of the mother in the hour of labour; he is frequently summoned to the lonely cottage at midnight, to give assistance in the most trying cases of difficult parturition: no time allowed for consultation, no help from the multitude of councillors, no division of risks and reputations, as in large cities; he must act promptly and with energy, unappalled by the purple current; on his science and art the anxious husband hangs his hopes, and trusts the life of the partner of his toils. There are but few of my country brethren, who have been in active practice for ten years, who have not been called upon to perform almost every operation in obstetrics, and with as great a share of success as even the great masters of the art can boast of.

He is likewise often called upon to perform many of the capital operations in the other branches of surgery—strangulated, inguinal, and femoral hernia demand his skill and attention, and are amongst the most frequent cases in rural practice, a very large proportion of agricultural labourers being obnoxious to this dangerous malady. Here a scientific acquaintance with surgical anatomy is at once requisite, and, as in midwifery cases, no time for delay. It is in general towards the termination of these fatal cases that his aid is sought for, from the patient's ignorance of the danger incurred; he has therefore, to operate at a great disadvantage, and contrary to the prejudices both of the sufferer and bystanders; but he has an important duty to perform, with which no selfish motives must interfere; and yet, compared with the statistics of the London hospitals, his success is in every respect equal with the operators in those institutions.

Amputation he has to perform in many cases, but generally from accidents; and since the introduction of threshing and straw-cutting machines such operations occur almost every year. These cases all demand prompt means for relief, and are tedious in the after-treatment, and occur, for the most part, at some distance from the residence of the surgeon: he may have to ride four or five



hundred miles whilst in attendance on a case of amputation.

Fractures of the skull, arms, and legs, and wounded arteries, form no inconsiderable part of the practice of the country medical man; and to these may be added concussion of the brain. All most important cases, and the treatment of which requires a thorough knowledge both of the art and science of surgery. Such as I have related are the "common emergencies" he has daily to meet and combat with, and, as I have before stated, generally without any further assistance than that afforded by some rustic labourer, who may have a heart stout enough to hold the limb or support the head of his wounded brother.

What is the grand object of all medical education? Is it not to relieve the sufferings of our fellow-creatures? Does not the legitimate application of our art smooth the pillow of affliction, and ease the racking pain? Does it not soothe the anguish of thousands, day by day, from the inhabitants of the gaudy palace to the sojourner in the mud-floored cottage of the daily labourer?

Any attempt in the nineteenth century at partial or class legislation for the medical profession will undoubtedly fail. That we ought to be recognised by the State as a most valuable and useful class, and one that has done good service, there can be no doubt; but if nominal distinctions are to be supported, for the sake of raising one class and depressing another in the social scale, such system would be unjust, and a fraud on the public.

A status can be and ever has been attained by the intellectual and diligent in the healing art, and such individuals will alone form the legitimate heads, and to whom each member, however humble, will be willing to pay his tribute of respect. Fancied and forced positions of superiority, the strongholds of imbecility, will ever meet with that contempt and ridicule which they so justly merit.

Your obedient servant,

J. W. MOSES.

St. Asaph, Dec., 1846.

### SURGICAL IMPOSTOR.

[From a Correspondent.]

The borough of Southwold, in Suffolk, was lately visited by a person representing himself, by handbills, as "Dr. J. Wolff, a chiropodist, pupil of the celebrated F. R. La Graunch, member of the Academies of Paris and Copenhagen, &c. &c.; patronised by the King of Belgium, the Princess Adelaide of France, the Duke of Aremberg," &c., and having, or pretending to have, testimonials from several physicians in Derby, Nottingham, and more particularly Birmingham; with those of other medical practitioners, and persons of consideration in those and other towns. The "Dr." appears to have lately had a residence in Surrey Mews, in the suburbs of the city of Norwich, from whence he was in the habit of making incursions upon various towns in Norfolk and Suffolk; but was somewhat suddenly interrupted in the practice of his vocation, having been deposited in the gaol at Beccles, in Suffolk, through proceedings originating with Dr. Wake, a practising surgeon and one of the borough magistrates, at Southwold; in which town, in the course of two or three hours, Dr. J. Wolff contrived, by his peculiar practice, to levy £11 or £12 upon four or five of the principal inhabitants, on the pretence of extracting corns from their feet. From one patient he pretended to extract, in about an hour, from only four apparent corns, no less than twenty-five small substances, which he called corns; for which he made a charge of £6. 5s., and received £6. From this patient the operator was, on 1st of the present month, very strongly recommended to Dr. Wake, with a view to his recommending him to any of his numerous friends afflicted with corns; but Dr. Wake thinking it necessary, previous to such recommendation, to have some personal proof of the Wolff's ability, offered to allow him to operate upon his feet, which were accordingly operated upon; and from four visible corns, four spicula or horny, bristly, or bony substances, which the ope-

rator pronounced to be corns, were extracted; but for which no charge was made upon Dr. Wake. Having found ease from the operation upon his corns, Dr. Wake afterwards introduced the chiropodist to a friend of his, W. C. Fonnereau, Esq., of Christ Church Park, Ipswich, from whose feet the operator produced four, and from another member of the same family eight, spicula of the same horny, bristly, or bony substances, some being smooth, some somewhat jagged, and some a little curved at the points; upon careful examination of which Dr. Wake began to suspect, and ultimately came to a conviction, that the substances produced had never been generated in a human foot, but were altogether artificial, and had, in the course of the operation, been first inserted in the opening made in the corn by the artiste, and afterwards extracted by him. Under this conviction, Dr. Wake came to a determination narrowly to watch the proceedings of the operator. In Dr. Wake's own case the chiropodist had placed himself in such a position that little or nothing of his operations could be seen, until the period arrived for extraction, when a broad pair of forceps were taken up, and the operator was seen to make various apparent efforts, by which extraction was at last effected. In the operation upon the feet of Mr. Fonnereau an attempt had been made by Dr. Wake to place himself in a situation to witness the proceeding; but he was unable to do so from an objection on the part of the operator to his "obstructing the light."

The anxiety of the operator to avoid particular observation of course gave additional strength to Dr. Wake's suspicions that imposition was practised, and, on introducing the chiropodist to another of his friends, Dr. Wake took a position where he could watch the operation without being seen; but, by accident, the operator being made aware that Dr. Wake was watching him, left his seat, complaining that it was too low for him; but after a few minutes (during which he went to another part of the room) returned to the same low seat, and finished the operation, proclaiming that he could not find a corn, although he thought that "he had crushed one." In the same house the Wolff had previously operated upon the feet of an elderly gentleman, from which he extracted four imaginary corns, and for which he received his usual charge of 5s. each, and received 10s. for the barren corns, which he had only pared.

Dr. J. Wolff's theory appears to be that the bone, under what is commonly called a corn, throws out corns sometimes in abundance; whence his harvest. It has already been remarked that each visible corn on the feet of his principal patients at Southwold produced five; but we have heard of a lady upon whom the Wolff is said to have operated in Ireland, who paid him £8 for thirty-two corns. Perhaps the number is unlimited, or limited only by the chance of detection, which is most probable, as the last corns operated upon at Southwold were unproductive, arising no doubt from a consciousness of the imminent danger of detection.

Having satisfied himself that the spicula extracted from corns had been previously inserted therein by the operator, Dr. Wake considered, upon consulting with his legal friends and brother magistrates, that, having parted with no money, it would be impossible to proceed under the Act of the 7th and 8th Geo. IV., c. 29., for obtaining money under false pretences; yet, unwilling that the impostor should escape, made a complaint under the Act against Rogues and Vagabonds, viz., 5 Geo. IV., c. 83; and, his information having been taken, a warrant for the apprehension of Dr. J. Wolff was granted, and Parker, the chief officer of police at Southwold, was sent off to Norwich to apprehend him. The doctor, however, being perhaps apprehensive of apprehension, was not found by the Southwold officer, and the warrant was left with an officer in the Norwich police, who subsequently apprehended him, and took him off to Southwold, and on Thursday the case was heard before the magistrates at the Town-hall; but in the meantime Mr. Fonnereau,

who had paid £3 for the twelve artificial corns extracted at his house, having laid an information under the Act of the 7th and 8th Geo. IV., cap. 29, which the magistrates considering the preferable case to proceed upon, it was proceeded with, and the chiropodist sent, as has been already stated, to Beccles gaol, for trial at the next sessions. On the hearing much was elicited to substantiate the fraudulent pretence; and amongst other evidence given was that of a blacksmith, who had seen Dr. J. Wolff, near his shop, amusing himself with picking up the parings of horses' hoofs, of which it was supposed that some of his spicula were fabricated.

After the arrest of Dr. J. Wolff, it was ascertained that he was not a doctor of medicine, but of languages, and had never received any medical education. It had been previously ascertained, from the superintendent of the constabulary at Cheltenham, that two chiropodists had been arrested in that town on the 9th of Oct., 1841, on a charge precisely the same as that made by Mr. Fonnereau against Dr. J. Wolff at Southwold, and had been sent to the house of correction for fourteen days as impostors. On this being made known to Dr. J. Wolff he admitted a knowledge of the parties so dealt with at Cheltenham!

### THE CHENOPODIUM OLIDUM.

[To the Editor of the Medical Times.]

SIR,—In April, 1829, I published the result of my experience of the emmenagogue properties of the *Chenopodium olidum*. I had at that time, I considered, sufficient evidence of its efficacy to justify me in recommending it to the attention of the profession. I have, since then, had frequent opportunities of watching its medicinal action, and I am perfectly convinced that it is a very safe and important remedy, in many cases in which the catamenial function is not duly performed. I employ the spontaneously evaporated extract in the form of pills, from five to ten grains, night and morning. In general, if the pills are taken regularly for a fortnight previously to the expected return, the beneficial effect of the medicine is manifested; should this not be the case I repeat them in the same manner, that is, for a fortnight previously to the expected change. I believe it has a decided action on the uterus; I know of no medicine that appears to have so direct an influence on the secreting functions of that organ. I do not advise this medicine to be given in all cases in which the catamenial flux is suspended, for there are many cases in which attention to the general health will effect a cure, but which, as I am writing to the profession, it would be superfluous to detail. It is in those cases in which the uterus itself requires medicinal aid that the peculiar benefit of the *chenopodium* is shown.

I am, Sir, your obedient servant,

JOSEPH HOULTON.

London, Dec. 21.

### THE QUALIFICATION OF APOTHECARIES.

The Society of Apothecaries entertaining an opinion, which they have publicly expressed upon several occasions, that a penal check upon the practice of medicine by unqualified persons is indispensably necessary for the protection of the public, and that the pecuniary penalty imposed by the Apothecaries' Act is but ill adapted for checking such practice, have long desired that a more summary mode of proceeding against illegal practitioners should be adopted; and they have advocated an alteration of the law in this respect, whenever a favourable opportunity for so doing has presented itself. A recent decision of the Court of Queen's Bench, in a criminal prosecution instituted against an attorney for practising without qualification, seemed to lead to the conclusion, that, notwithstanding the specific pecuniary penalty imposed upon unqualified persons practising as apothecaries, such persons might be indicted criminally as for a misdemeanor. The decision appeared to the society to suggest a mode of proceeding for



checking the illegal practice of medicine which might be attended with such important results that they determined to lose no time in obtaining the highest legal opinions upon the subject. They, therefore, laid a case before the law officers of the Crown, and it will be found from the answers given to the questions submitted to the Attorney and Solicitor General, in consultation with Mr. F. Robinson, that it is the opinion of those learned gentlemen that an indictment will lie against a person who has practised as an apothecary without legal qualification. The society subjoin the questions proposed to counsel and their answers thereto.

## QUESTIONS.

1. Whether an indictment will lie against a person who has practised as an apothecary without legal qualification, notwithstanding the particular penalty imposed upon persons so practising by the 20th section of the act, and the disability imposed upon them by the 21st section? and, if you should be of opinion that an indictment will lie,

2. In what courts, metropolitan or provincial, could such an indictment be preferred? and could it be preferred at the instance of a private prosecutor?

3. Would it be competent for the Society of Apothecaries to prefer such an indictment, notwithstanding the interest given to the society in the pecuniary penalties imposed by the 20th section, and the particular remedy given to the society for the recovery of such penalties?

4. What would be the extent of punishment which could be inflicted by law upon a person convicted of the offence of practising as an apothecary without legal qualification?

5. Can any more summary proceeding than an indictment be resorted to, for the punishment of persons practising as apothecaries without legal qualification?

## ANSWERS.

1. We think that an indictment will lie against a person who has practised as an apothecary without legal qualification, notwithstanding the particular penalty imposed by the 20th section of the act, and the disability imposed by the 21st section.

2. The indictment may be preferred in any of the ordinary criminal courts having cognizance of misdemeanors committed in the county or place in which the party has so illegally practised, and it may be preferred at the instance of a private prosecutor.

3. We think it is competent for the Society of Apothecaries to prefer the indictment.

4. The punishment, as in the case of other misdemeanors, would be fine or imprisonment, or both, at the discretion of the court.

5. We are not aware that any more summary proceeding than an indictment can be resorted to, for the punishment of persons practising as apothecaries without legal qualification.

JOHN JERVIS,

DAVID DUNDAS,

Temple, Nov. 23. FREDERIC ROBINSON.

It is perhaps hardly necessary for the society to point out the increased facilities which this mode of proceeding affords for putting the law in force against unqualified practitioners.

Instead of proceeding for the recovery of penalties by a civil action, which in the case of a country practitioner could only be tried at the spring and summer assizes, an indictment may be preferred at the quarter sessions and at the assizes also; and, instead of the power of proceeding against unqualified practitioners being restricted, as in the case of the specific penalty imposed by the statute, to the Society of Apothecaries, it will be competent for any person to prefer an indictment who may be disposed to do so.

Another distinction between the two modes of proceeding, which is likely to operate still more powerfully as a check upon illegal practice, is this, that whereas an individual against whom a judgment for a penalty is obtained, under the present form of proceeding, can relieve himself from the consequences of his offence by obtaining his discharge under the Bankrupt or Insolvent Acts, an individual found guilty on indictment of having practised as an apothecary without legal qualification will be punishable by fine and imprisonment,

and will have to undergo whatever measure of punishment the criminal court may in its discretion award.

The society sincerely hope that a public intimation, that the penalties of the law can now be enforced against illegal practitioners of medicine more summarily than heretofore, will deter all persons from practising as apothecaries who have not given such evidence of their competency to practise as the law demands. But, if individuals who have not possessed themselves of a legal qualification will persist in practising in the absence of such qualification, they will do so at the risk of being criminally indicted for the offence at the instance of any individual prosecutor who may be induced to prefer an indictment against them.

The society on their part will be ready, as they have ever been, to enforce the law to the extent of the means placed at their disposal, but those means are inadequate to the institution of frequent prosecutions. It may, therefore, be anticipated, that indictments will be preferred at the instance of other parties; and the society take this opportunity of stating, that they will endeavour to render such experience as they may have acquired in administering the act of 1815 available in furthering the ends of justice; and that they will be prepared, upon proper application, to furnish any information in connection with the subject of illegal practice which they may have it in their power to afford.

Apothecaries' Hall, Dec. 10.

## GOSSIP OF THE WEEK.

WAR-OFFICE, Dec. 22.—56th Foot—Assistant-Surgeon George Alexander Cowper, M.D., from the 66th Foot, to be Surgeon; James Henry May, gentleman, to be Assistant-Surgeon.—71st Foot—Assistant-Surgeon Henry Cooper Reade, from halfpay of the 79th Foot, to be Assistant-Surgeon, vice Grant, promoted in the Royal Newfoundland Companies.—Royal Newfoundland Companies—Assistant-Surgeon Cathrine Campbell Hamilton Grant, from the 71st Foot, to be Surgeon, vice Pink, appointed to the Provisional Battalion.—Provisional Battalion—Surgeon John Freeborn Pink, from the Royal Newfoundland Companies, to be Surgeon, vice Samuel Ayrault Piper, M.D., who retires upon half-pay.

On Friday last, Mr. F. H. Brett was summoned before Mr. Burrell, of the Westminster Police Court, for sending a challenge to Dr. Basham, of the Westminster Hospital. The circumstances under which the affair originated are briefly these. The nomination of candidates for the offices of Surgeon and Assistant-Surgeon to the Westminster Hospital, vacant by the resignation of Mr. White and Mr. Benj. Phillips, had been fixed for Saturday, December 12. At the meeting of the House Committee on that day, Mr. Brett offered himself in opposition to Mr. Phillips for the office of Surgeon. Dr. Basham contended that it was unjust, and against all usage and custom, in metropolitan hospitals, to admit a candidate for the surgeoncy against the Assistant-Surgeon; and that to admit a party, to contest the office against Mr. Phillips, was virtually to repudiate the zealous and efficient services of that gentleman, during the three years he had held the office of Assistant-Surgeon; and that, if any further reasons were necessary why Mr. Brett should not be admitted as a candidate, they were, that Mr. Brett was a petitioner to the Court of Bankruptcy, for the protection of that court; that his petition was not set down for hearing till the 17th of December, and that pending that hearing his *civil* position disqualified him from admission as a candidate. This fact was established by the petition, with Mr. Commissioner Fonblanque's order for his appearance on the 17th being produced to the committee. As no one proposed him as a candidate, his application fell to the ground. On the following Tuesday, Mr. Brett presented a letter to the House Committee, complaining of an unwarrantable

attack on his private character. As no one in the committee moved that his letter be received, no notice was taken of it, further than that the Chairman, the Honourable Mr. Bouverie, assured him that no observations of a personal nature had been made by any one on Saturday, nor had any attack been made on his private character. On the evening of that day, the challenge was sent to Dr. Basham, who replied to it, denying that he had made any personal observations, and referring Mr. Brett to a friend. An abusive answer to this reference left no alternative but to summon Mr. Brett before a magistrate. Mr. Brett, having admitted the letter produced, was asked by the magistrate if he had any observations to make. He answered that he had been informed that Dr. Basham, at a public meeting, had made use of expressions highly offensive and personal against him, and that he had no alternative but to act as he had done. Dr. Basham emphatically declared that he had confined himself simply to the statement of a fact, and that he had most carefully abstained from all personal observations; and that there were several gentlemen in court who could testify that his remarks were free from all personal allusions. Mr. Brett was then bound over to keep the peace, himself in £100, and two sureties of £50 each.

DR. M'WILLIAM.—We are happy to state that Lord John Russell has given to this eminent officer the valuable appointment of medical attendant to the Board of Customs, recently become vacant. This appointment was conferred in the most handsome manner, without any application on the part of Dr. M'William, Lord John's secretary stating in the letter which announced it, that it was conferred on account of Dr. M'William's distinguished services in the river Niger, in the year 1841. Most of our readers will remember the disastrous results of this expedition: but only a small number may be aware of the share that Dr. M'William had in saving its shattered remnants from utter destruction.

ADVENTURINE GLASS.—This costly and beautiful sort of glass, used for ornamenting objects of art and *vertu*, could not be hitherto made but at Venice. Only so much was known, that very minute crystals of metallic copper of great lustre, which, mixed throughout the mass of dark reddish-yellow glass, imparted to this substance that lustrous and indescible appearance for which it was so much prized. Messrs. Fremy and Calendeau have lately laid before the French Institute their process for making this valuable substance. It consists of mixing powdered glass with hammer slag (black oxide of iron or scales from the forge) and oxide of copper, and keeping the whole for a considerable time in a state of fusion. By these means the copper crystallizes in the glowing mass of glass in the shape of small octahedra, which, being dispersed through the mass, impart to it a beautiful scintillating appearance. Still, the original Venetian samples and those made by Messrs. Fremy and Calendeau were not of equal quality, the mass of glass wherein the crystals are embedded being in the former case clear and pellucid, in the latter rather soiled, and barely transparent; the crystals in the Venetian are large and very regular; in the French small, irregular, and fibrous. The principle, however, is discovered, and it will only require (as with every thing else) time and experience to equal the Venetian patterns. This information may be useful to our now unshackled glass-manufacturers.—*Builder*.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, Dec. 18:—J. Finneane, J. J. Mitchell, T. A. Cammack, H. Lambden, W. D. Dibb, T. Keavin, W. B. Midwood, and T. W. Nunn.

APOTHECARIES' HALL.—Gentlemen admitted members Dec. 17:—John Colston, George Fred. Hughes Brown, Thomas Edward Pearce Martin, and William Bennett.

OBITUARY.—On the 14th inst., in Charles-street, Manchester-square, Dr. John Foley.

Dec. 8, aged 71, W. Allman, M.D., late Professor of Botany in the University of Dublin.



No. 379.

## SUMMARY.

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## ORIGINAL LECTURES.

## SUBSTANCE OF A LECTURE.

By Sir BENJAMIN BRODIE.

## ON ABSCESSSES OF THE PERINEUM.

GENTLEMEN,—To-day I propose to call your attention to a subject of great interest in surgery—one which is not of very common occurrence, but, as it is met with now and then, it is the more necessary that you should be acquainted with it. I propose to speak of abscesses in the perineum. Abscesses may occur in the perineum attended with disease of the urinary organs, in the cellular membrane, or in any other part. I remember the case of a gentleman who was of very apathetic constitution, and in a debilitated condition, I believe, from irregular living, who had an abscess in the perineum which burst, and the skin sloughed to some extent. Now, in this case there was no evidence that it was connected with the urinary organs; the abscess healed, but soon formed again, again burst, sloughed, and healed, thus maintaining a constant succession of abscesses; yet no connection with the urinary organs could be made out. He was troubled with acidity of the stomach, and was recommended to take a dose of magnesia, which he did every night, and the abscesses ceased to form. He attributed the cessation of the abscesses to the effects of the magnesia, and I think it likely he was right.

Abscesses in the perineum are generally connected with the prostate gland, and occasionally with the bladder. The most common circumstances under which these abscesses form are when the patient labours under gonorrhœa. Thus a patient has a profuse gonorrhœal discharge, which at first diminishes little by little, till it disappears entirely; this may happen in consequence of his using strong injections, but it often occurs in that stage when surgeons do not recommend injections, as in the inflammatory stage. The discharge suddenly ceases, then the patient complains of pain in the urethra, and experiences difficulty in making water, and particularly when in the commencement, from the pressure at the neck of the bladder, and the water comes away in a diminished stream. There is also a pain felt in the back, groin, pubes, and sense of weight in the perineum. The stream is very small and sometimes there is complete retention. The patient at last feels fulness in the perineum, which increases very much, and which depends on the presence of matter which forms deep in the perineum. If this is left to itself it breaks, perhaps, in the perineum or in the neck of the bladder, or sometimes, instead of coming down to the perineum, it makes its way back to the rectum and bursts in front of the anus. Now, you will observe that in this case all the painful symptoms indicate inflammation of the neck of the bladder; I believe there is a translation of the inflammation from the urethra to the prostate gland or cellular membrane covering it. It may be that this inflammation is not only in the prostate itself, but in the cellular membrane covering it, in the same manner as you sometimes find suppuration about lymphatic glands. There is only one circumstance that would lead us to suspect that abscesses of the perineum have

their origin in another way than what I have stated; it is that when the abscess bursts, upon the patient making water, a small quantity of urine comes away from the perineal opening. When you are called to a patient under these circumstances of abscess after stoppage of the gonorrhœal discharge, and there is inflammation of the neck of the bladder, it is very important that you should stop the progress of this inflammation of the bladder, to prevent its going on to suppuration. The patient should lose blood by the application of leeches to the perineum, or by cupping; but employ none who is not a dexterous cupper, for it is not every cupper who can do it in this part successfully, though in London there are plenty who can do it very well. The patient may lose from  $\frac{3}{4}$  v. to  $\frac{3}{4}$  xiv. of blood, according to the intensity of the symptoms and the strength of his constitution. Give calomel and opium so as to place the patient under the influence of mercury, as in the treatment of inflammation in general—as, for instance, of the iris; 2 or 3 gr. of calomel and  $\frac{1}{2}$  gr. opium, or more; endeavour to get the gums affected as soon as possible, until there is time for the cupping to have effect. You may relieve the patient by means of an opiate clyster; I sometimes inject  $\frac{3}{4}$  j. of tinct. of opium and  $\frac{3}{4}$  iij. of starch. The opium tends to allay the inflammation as well as the pain. A person sometimes cannot empty the bladder, and a straining is kept up from the morbid sensibility of the bladder, and this straining aggravates the inflammation. Now, by administering opium you allay the pain which causes him to strain, and the consequences of the straining cease. This may be illustrated by another case, as, for instance, when a patient has inflammation of the knee, by a frequent rubbing of the knee he keeps up a constant state of inflammation; and, if you advise him not to rub this knee, he will, by refraining, do much to allay the inflammation. Another thing is necessary in some instances—the patient's urine must be drawn off with a catheter. For this purpose you must use a small catheter, as a large one will irritate the urethra, and increase the inflammation in the neck of the bladder. A small gum catheter is best, and far superior to the metallic, which does not yield to the parts like the other; use, then, a small elastic catheter, and even when there is not absolute retention of urine, as when the patient is constantly straining to make water, because he cannot entirely empty the bladder, but at every time leaves some behind. This residuary quantity of urine keeps up a constant irritation, which the use of the small gum catheter will prevent; it may be used for this purpose two or three times in the day. I remember one gentleman who had inflammation of the neck of the bladder, and by this mode of treatment, with the use of the catheter, in three hours the inflammation subsided without the formation of an abscess. But this catheter you must employ with a light hand, and as gently as possible, as the inflamed parts are very much in danger of injury where the greatest care is not taken. Supposing the disease is in an advanced stage, and you have hardness and fulness of the perineum, and you examine the perineum and can feel no matter there, but there is in one spot a more fluctuating feeling than elsewhere, and in some cases a rigor, or per-

haps more than one. But the mere circumstance of hardness and increase in size of the parts is sufficient to show that there is a deep-seated abscess; and the matter is situated behind the triangular ligament, which prevents its coming to the surface, and hinders you from feeling the fluctuation of matter. If you wait till the fluctuation becomes distinct, you may wait till the abscess has produced serious injury, by dissecting its way among the neighbouring textures. When you have hardness in the perineum in such a case, you must introduce the lancet in that part in which the hardness is most distinct; but the lancet will be required to enter very deep, even up to the shoulders if the lancet is a common one, before you can reach the seat of the matter; this is especially the case when your patient is fat, so that the lancet will barely reach it. However, you may introduce the lancet with the greatest confidence, there being nothing to injure; if you introduce it to an insufficient depth, you do no good; and if you introduce it to a proper depth, the matter comes away, and your end is gained. When no matter has been felt externally, I have sometimes let out  $\frac{3}{4}$  j. or  $\frac{3}{4}$  iij. of pus, by this use of the lancet, from under the deep fasciæ.

In some cases you find that the abscess becomes fistulous: a little urine drips out through the opening in the perineum, only a few drops perhaps at first, the flowing of these few drops will prevent the abscess from healing, and make it a fistulous abscess; but the urethra contracts in the membranous part, and all you have to do is to introduce a bougie or sound every now and then into the bladder; the contraction is not a permanent one, and there is no difficulty in doing this; you may introduce a full-sized sound, almost in the first instance; should this, however, distress your patient, you may use a small one at first, and increase the size by degrees—using it once in two or three days. By this means the urine will be brought out at its proper canal, instead of the unnatural opening, which soon heals. In the greater number of instances the removal of the cause will be followed by a cessation of the effect; the restorative powers of nature will bring the injured parts into their proper condition. You thus restore the urethra, which was narrower than natural from inflammation, to its proper diameter, and draw away the urine, the passage of which into the perineum prevents the sinus from healing.

Abscesses of the perineum are often old strictures of the urethra. If you look into the museum of this hospital you will see how these are formed. And let me observe here, that, if you wish to lay a good ground for your further professional studies, you cannot do better than study the pathological preparations in the museum; there is a good catalogue, and there are many most excellent preparations; indeed I know nothing more instructive than the diligent study of morbid anatomy in the museum. I was saying you can see in the museum how these abscesses are generated. The patient's stricture prevents his making water in a full stream, and the urine is pressed against the back part of the urethra; this constantly occurring, at last the part ulcerates. At first the hole is not bigger than a pin, through which a little drop of urine



escapes without pain at first, and, even when the patient makes water without any great difficulty, then ulceration takes place generally.

A single drop will escape into the cellular membrane, whilst the great part will go along the natural passage, and half a drop is sufficient to cause inflammation of this membrane. A drop of water or mucus might not matter, but it is different with urine. Where the drops proceed, inflammation of the cellular membrane is set up, and the patient complains of pain in the perineum and pubes; by-and-by there is hardness in the perineum, which increases with much swelling; and if this disease is left, there is increased swelling, extending to the nates: this swelling is oedematous; rigors follow, and there is great constitutional disturbance. The swelling goes on till the skin breaks, and pus, pretty healthy, is discharged, and the swelling subsides and the oedema disappears. The next time the patient makes water, he does so much more easily. Frequently, also, during the formation of matter, there have been rigors, and the constitutional disturbance may have been great, but both of them subside as soon as the abscess gives way. At first nothing comes from the abscess but pus, frequently healthy pus; but, however, after a time, urine is found to pass through the orifice whenever the patient makes water—the quantity depending on the size of the opening of the urethra. The flow of urine through the perineal opening keeps the parts tender and swollen, and the sides become hard and callous, and the edges project. This is called fistula in perineo. Sometimes only one fistula, and sometimes there are several, one in one place, another in another, as in old cases of stricture; these old sinuses burrow under the skin and form sinuses in the nates. These fistulas are very distressing to a patient, and every now and then the opening gets stopped by the great constitutional disturbance. But the patient, under these circumstances, is less liable to a retention of urine than before the formation of this unnatural opening, for, if the urine be restricted in the bladder, it can yet find its way through the opening of the fistula, and thus retention will be prevented.

I have described this disease as connected with stricture in its simplest form, but sometimes it is much more complicated. You are called to a patient with an old stricture of the urethra, and you find symptoms of matter forming in the perineum, hardness, and swelling; but, besides these symptoms, there is very great constitutional disturbance. You find a small quick pulse, dry black tongue, hot skin, sordes of the teeth, and the patient looks like one dying of putrid fever. These symptoms are caused by the generation of carburetted hydrogen and sulphuretted hydrogen from the putrid matter, resulting from the mixture of urine with pus; and patients have frequently died of the poisonous gases thus absorbed into the system. This is a very distressing case, but you may generally relieve it. In cases of stricture of the urethra, the treatment of abscess is different in one respect from those in which the abscess arises from gonorrhœa: in these last you may prevent the formation of matter, but in the other case you cannot prevent it, indeed you should not, and by applying leeches and exhibiting mercury you only do harm; you may retard this formation of matter, and thus prolong the case, but you cannot prevent it. Rather let the patient foment the parts, let him use the warm bath, and do all you can to promote suppuration; let him sit over a bidet, and sponge the parts three or four times a day. Then, as soon as the abscess is well advanced, let out the matter with a lancet, especially if there are symptoms of presence of putrid matter, without a moment's delay: this has been done over and over again. Patients have been brought into this hospital at death's door, with hardness in the perineum, from presence of an old abscess, and all the symptoms of dying from putrid fever; I have run in a scalpel and found matter—I never failed; the moment the matter has been let out, all these symptoms have subsided; then carburetted and sulphuretted hydrogen gases—though poisonous in the lungs and blood, like prussic acid—evaporated very readily, so that when the patient does not die he recovers very rapidly.

Now, there is another case of perineal abscess

connected with strictures of the urethra, when the stricture is of old standing and there is retention of urine. When you see a case of this description, you endeavour to pass a catheter, sound, or cutgut bougie, but nothing penetrates; you find the patient ill, with something like typhoid symptoms; you may suspect that matter is forming in the perineum. Examine that quarter, and if you find hardness do not lose time, but make a deep incision in the perineum with the double-edged scalpel. You may have your patient in the same position as you would for the operation of lithotomy, and you will come down to a deep abscess; as soon as the matter contained in this is let out, you may directly take a good-sized catheter and introduce it into the bladder. These cases of abscess in the perineum, with typhoid symptoms or retention of urine, or both combined, require immediate attention; their urgency will not allow you to go home and think about the case, or to consult with another upon it; while you were so doing the patient might die; it is therefore of the greatest importance that you should bear in mind what I have just said, in order that you may have a fund of knowledge available at any moment. The treatment of these abscesses, then, in the first instance, is as simple as possible, namely, abscesses in the perineum, connected with old strictures, require to be opened, and, if not urgent, you may let it come near the skin before you make an opening, but if it is urgent, however deep, you must make it directly. But I told you that there was a communication between the urethra and abscess: sometimes the opening is small, and only a drop of urine can get into the abscess; and sometimes the opening is large, and the patient will make as much or more water through the orifice in the perineum, as through the natural passage. It was at one time thought that these fistulae should be laid open like fistula in ano. Now, there is a special reason for opening the fistula in ano, which I need not now explain, as you meet with it in the regular course of lectures; but this special reason does not exist here. You cannot here perform that operation, for obvious anatomical reasons. It was formerly supposed that all fistulas required to be laid open, but, except those in the rectum, there is no fistula requiring to be laid open unless there is a lodgment of matter. The first thing required for the healing is, that matter should come out as fast as it is generated, whether in one part of the body or another. In some cases of fistula in perineo it is necessary to make an opening in order that matter lodged in some *cul de sac* may have vent. If the stricture is much contracted, and the opening into the perineum is large, much urine gets into it, and is diverted out of its natural channel; you then introduce the bougie or sound, and dilate the stricture half its natural diameter; and generally you find the fistula will soon get quite well, without additional treatment. A patient has said to me, "You have not looked at the opening in the perineum." I have replied, "Never mind that at present." By-and-by, when the treatment I have described had been pursued a little while, I have said, "How are the openings in the perineum?" and the reply was, "Oh, they have closed and are well." You may, however, now and then, when the opening into the perineum from the urethra is large, have a case in which the fistula will not get well so easily, and, though you employ a good-sized catheter, the water gets into the perineal opening. By introducing a probe armed with nitrate of silver into the sac, at the same time touching the outer side with caustic potash, the latter prevents healing, while the former promotes it. You may arm the probe by taking melted nitrate of silver and dipping your probe in it. I do not recommend this plan now. I used to keep the patient in bed, and draw off the urine with a gum catheter; but I found that a part of the urine escaped by the side of the catheter; I found that it does harm as well as good if left in: it produces suppuration, and a good deal of matter escapes into the urethra. Rather let the patient learn to use it himself, or let him pass a sound—no resistance will be met with; do not pass a gum catheter, it is not firm, and gets entangled in the orifice of the fistula. A sound may be inserted into the bladder without getting into the orifice of the

fistula; let him use it two or three times a day, and in the course of time, in one, sometimes in two, or perhaps twelve, months, the opening into the perineum will have closed. I have known this to happen when fully half the urine has been voided by the perineal opening instead of the natural channel.

There is one kind of perineal abscess, sometimes met with after hard strictures of the urethra, with but slight contraction. A patient says, "Here is a substance like a horsebean in the perineum." This will go on for years together, with pain on micturition, and part rather tender; in this case there has been at first a small ulcer of the urethra, by which a drop of the urine has got into the cellular membrane, bringing on inflammation, and causing the hard lump, and matter is generated. This matter does not find its way directly out by the urethra, but goes backwards and then forwards, and continues to discharge for a long time. The treatment for the cure of this disease requires you to place your patient on the end of the bed, as for lithotomy; plunge an abscess lancet, or, what is better, the double-edged scalpel, into the middle of the perineum, till you come to the abscess, then introduce a piece of lint into the opening to prevent its closing, and let it remain for two or three days; then take it out and let the patient make water; observe if any urine flows through the opening; this will most likely now be found closed. It was a blind fistula; but by this operation you have made an external opening; it is now like a common fistula, and to be treated as such. But if the urine does not flow through it, it shows that you have not exactly hit the tumour; under these circumstances I have taken a small narrow piece of caustic potash and introduced it into the opening, where it makes a slough, and stops much of the irritation round the abscess. After the slough comes away the cavity of the abscess is exposed; and when the water comes out you cure it by means of a bougie.

#### DUMAS ON ORGANIC CHEMISTRY. No. VI.

##### PHENOMENA OF COMBUSTION IN ORGANIZED BEINGS.

(Continued from page 238.)

We promised, in our last lecture, to resume this subject, by pointing out the ultimate destination of the nitrogen which is taken up in the food. We have already stated, that it disappears chiefly by the urine: such, also, was the opinion long since professed by Fourcroy. It is much to be regretted that the original essays of this celebrated professor on physiological chemistry have for a long period been lost to science, for they undoubtedly merited more attention than has been hitherto accorded to them. But, to return to the subject we were considering, namely—the circumstances attending the elimination of nitrogen by the urine. A healthy man excretes, daily, from fifteen to sixteen grammes (about half an ounce) of nitrogen by the urine: that is to say, the greater part of the nitrogen which is absorbed from the aliments in the course of the four-and-twenty hours. This nitrogen is eliminated in the form of urea (the only important azotised matter existing in the human urine) which is contained largely in the urine found in the kidneys, and therefore with still greater reason in that which has dwelt for some time in the bladder.

The first question which presents itself, as a consequence of the foregoing views, may be put in the following form:—Where is this urea manufactured? The kidney separates it; but does it follow that it is formed within the structure of this organ? To judge of this, we must reconsider the facts previously adduced, that we may the more easily comprehend the regularity and uniformity which Nature presents in all her vital manifestations.

We have already seen that carbonic acid is absorbed by the cortical pores of the plant; but the phenomena of reduction do not take place in that part. We have also found that the lung absorbs oxygen and exhales carbonic acid; the process of



oxidation, however, is not accomplished in its interior: the experiment performed by M. Edwards on the frog, which, when placed in perfectly pure hydrogen, exhales a volume of carbonic acid surpassing itself in size, proves the above in the most complete manner. The animal becomes, then, saturated with oxygen, as with carbonic acid; it absorbs the former and rejects the latter, the production of which, however, does not take place in the air tubes of the lung, but chiefly in the current of the blood itself. Similar laws will be found to preside over the formation of urea: and in the same way as the lung is the seat of a mere exchange between the exhaled carbonic acid and the absorbed oxygen, so is the kidney the seat only of the separation of urea. It is impossible, in fact, to conceive this organ capable of manufacturing the urea—to suppose that it has the power of daily destroying, or reducing to their original elements, 100 grammes of dry azotised matters. But, if we allow that the production of the urea takes place in the current of the blood, then the function of the kidney is easily comprehended: it is to the urea what the lung is to carbonic acid—an emunctory, or organ of elimination. Now, if we examine the blood of a healthy animal, we shall doubtless be surprised, after what I have just said, to find that it does not contain a trace of this substance; at least, no one of the chemists who have examined this fluid has been able to discover any in it. One would certainly be apt, under such circumstances, to draw a conclusion contrary to the foregoing opinion; but a very simple experiment, which I performed with my friend the learned Prevost of Geneva, goes far to resolve this difficulty. In the first instance, we removed one of the kidneys of a dog, and, when the animal had entirely recovered, we excised the other. With one kidney the dog lived; but after both had been removed it presented morbid symptoms of a most intense character, and died about the third day. Some of the dogs on which we operated lived for eight days after the removal of both kidneys, but this was very rare. On drawing blood from the animals at a favourable opportunity, and afterwards examining this fluid, a remarkable quantity of urea was found in it. These experiments have been repeated by Segalas, Vauquelin, Tiedemann, and others, with a similar result. We are, then, inevitably led to the conclusion, that the urea is formed independently of the kidneys, in the same way as the carbonic acid and water are formed independently of the lungs; that, in fact, all the urea rejected by man is produced in the current of the blood by the process of respiration: that is to say, by that slow combustion which takes place there, and of which the products are carbonic acid, water, urea, biliary matter (which we shall find presently as one of the constituents necessary to digestion), and some other substances met with in various special organs, but with the consideration of which we shall not now delay ourselves. It is, then, in the blood that the most interesting phenomena of vital chemistry are manifested.

Before proceeding further with this subject, I wish to show that the principles above laid down are those which are most in accordance with the laws of organic chemistry, and which will best serve to enlighten us upon some of the mysteries of physiological science. My meaning will, perhaps, be better understood after an attentive consideration of the two following theorems:—

1. In every kind of oxygenated matter, the volatility diminishes in proportion as the number of the atoms of oxygen is augmented.

2. With regard to organic matters: if an atom of oxygen be substituted in them for one of hydrogen or of carbon, the resulting compound is brought within a less complex class of products.

Thus, in the following table, the substances will be found to pass in order from the first to the last division during the process of assimilation in the green plant:—

No. 1.	No. 2.	No. 3.	No. 4.
Carbonic acid, water, ammonia.	Lactic acid, alcohol, ether.	Sugar, citric acid, gum.	Fibrine, lignine.

In animals, and generally speaking during that progressive development which is effected by the employment of the chemical forces, lignine, on the contrary, is transformed successively into sugar and lactic acid, and, finally, into water and carbonic acid. Oxidation is, then, an especial effect of this development, resulting from the employment of the chemical forces. If we oxidize a molecule of acetic acid, there are produced two atoms of formic acid; by continuing the oxidation we shall obtain four of carbonic acid. So, also, by oxidizing a molecule of sugar we have formed twelve atoms of oxalic acid; and, by continuing the oxidation, the result will be twenty-four atoms of carbonic acid. Oxidize a molecule of camphor, and it will produce two of camphoric acid, &c. We see that, in general, the oxidation of organic matters leads them towards the mineral state; and such, also, must be the case in animal life—the chemical phenomenon which is characteristic of vitality in the animal being one of oxidation.

The next question which presents itself for our consideration is this:—Is there, or is there not, an assimilation of the nitrogen of the air during respiration in the animal? Few persons would hesitate to answer this in the negative. The animal burns the proceeds of its digestion by the aid of those matters which it receives in respiration; it cannot, therefore, assimilate an element from that of which it does not appropriate a portion. But it may be said, although there be no assimilation of nitrogen, may it not happen that during respiration there is burned a certain quantity of azotised matters, which will thus set at liberty their nitrogen, and, consequently, produce an exhalation of this gas? If we regard the experiments hitherto performed, their results would appear favourable to this latter supposition; but, at the same time, they fully demonstrate the difficulty which is encountered in coming to a decision on this point. In fact, three conditions may present themselves: sometimes the quantity of nitrogen found in the air which has served for respiration remains unchanged; sometimes it is diminished—this is most rarely found to be the case; while at other times, and most frequently, it is augmented. Lastly, in some experiments, the same individuals have given, at one time, an increase of nitrogen, and at another a loss, according to the season or time of year when the experiment was performed. Our uncertainty will be still further increased on referring to the names of the experimenters:—Lavoisier, Davy, Humboldt, Berzelius, Berthollet, Spallanzani, Edwards, &c. More recently, MM. Dulong and Despretz have found an exhalation in almost all their experiments. M. Boussingault has likewise arrived at a similar conclusion, but by less direct methods.

The most convenient plan for carrying out these experiments, and that which promises the greatest certitude in its results, is one adopted by M. Dulong. The apparatus he uses is composed of two gasometers communicating one with another by means of tubes, and also of a copper box, in which the animal may be enclosed so as to isolate it completely from the external atmosphere. Suppose one of these gasometers to be filled with air, and the other with water; the air may be displaced from the first by filling it with water, which will thus cause the air to enter the second gasometer; but, in this course, it is compelled to pass through the box, where it serves for the respiration of the enclosed animal. In the first place, then, we make use of the common air; and, secondly, we collect the air which has served for respiration. The air is accurately measured both before and after the experiment. We can thus immediately appreciate any change in volume which it may have undergone, and by analysis we may ascertain the proportions of each of the principles contained in it, and so make known their modifications.

But experiments conducted in this manner are liable to be influenced by several causes of error:—1st. The difficulty of the analysis of mixed gases

when performed by a system of admeasurement, in which we must take into account the amount of pressure or tension produced by the vapour of the water as well as by the temperature. 2nd. The necessity of calculating the nitrogen by a mere comparison of difference, whence it follows that it must be affected by all the errors inevitably committed in the measurement of the other gases. 3rd. The impossibility of drawing an accurate conclusion by a comparison between the volume of gas ingested and that of the gas expired. We set out, in fact, with the following reasoning:—The animal has received so many measures of air of a known composition, and it has yielded so many of some other ascertained composition; therefore the two analyses will indicate the change effected by respiration. But, in respiration, the animal becomes saturated with oxygen, and it exhales carbonic acid. The exhaled carbonic acid does not then arise immediately from the oxygen which is absorbed. There is no degree of proportion in the exchange of gases during respiration; and with still less reason can we suppose that the oxygen absorbed is identical with that which forms part of the disengaged carbonic acid. To admit this identity would certainly lead us into error.

It is impossible then to decide, in making an analysis of the air expired during respiration in man, whether the excess of nitrogen which is observed arises from a real exhalation, or whether it is owing to the disappearance of the oxygen corresponding to the hydrogen burned.

To sum up: I believe we may, with reason, allow that the economy eliminates the nitrogen taken in the aliments by four different ways:—1st. By the secretion of mucus. 2nd. By the bile and the excrements. 3rd. By the lungs and the skin. 4th. By the principal emunctory of nitrogen from the system—the kidney. The three modes first enumerated eject but a very limited quantity.

Let us now examine under what form nitrogen is chiefly eliminated. We have already stated that it is as urea. This substance exists as well in the urine of the kidney as in that of the bladder, and also in urine when fresh voided; but when this liquid has become putrid we can no longer find it there: it has disappeared, and in its place we have carbonate of ammonia. In fact, if we pour a little acid into putrid urine, there is immediately disengaged a considerable quantity of gaseous fluid, which is nothing more than carbonic acid; on adding to this some alkali, as potash or lime, litmus paper, which had been previously reddened, reacquires its blue colour. A glass rod, moistened with hydrochloric acid, when exposed to the vapours which escape from the vessel, is surrounded by a thick cloud, owing to the formation of sal ammoniac. Thus, the transition or metamorphosis of the urea which is found in the bladder into carbonate of ammonia, is attended by phenomena every way deserving our attention.

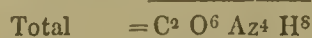
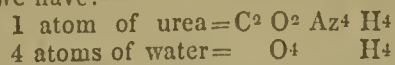
If we leave urine to itself for a short time, it becomes the seat of a second process of vitality—a species of fermentation, which is the result of the life of certain beings capable of existing in this medium. It is then by a more lengthened series of the phenomena of life that this transformation is effected. By prolonging vitality, as we have several times repeated, nature does but bring the materials of which the living being is composed back to their original constitution:—water, carbonic acid, ammonia. There is then a general process of vitality, which takes place beyond the body of the animal. Life has a fixed term; and the animal dies when its organs have no longer the power of resisting their resolution into carbonate of ammonia. Nature seeks, therefore, to effect these purposes beyond the body of the animal.

Our next consideration is the mode in which urea is transformed into carbonate of ammonia. Nothing can be more simple than this. In the first place, the formula of carbonate of ammonia is as follows:—

$\text{CO}_2, \text{Az}^2 \text{H}^3, \text{HO}$ . Now, if we double this formula, we have— $\text{C}^2 \text{O}_4, \text{Az}^4 \text{H}^6, \text{H}^2 \text{O}^2$ . Urea is represented by— $\text{C}^2 \text{O}^2 \text{Az}^4 \text{H}^4$ .



On comparing these two formulæ, we see that by adding 4 atoms of hydrogen and 4 of oxygen, or, in other terms, 4 atoms of water to that of urea, we have:—



or 2 atoms of carbonate of ammonia.

There is also another way of viewing this transformation of urea into carbonate of ammonia; and I cannot impress this too strongly on your mind, inasmuch as it may throw some important light on the mode of formation of urea in the economy. Instead of the constitution given above, urea may be described as follows:— $\text{C}^2 \text{ O}^2 \text{ Az}^4 \text{ H}^4 = \text{C}^2 \text{ Az}^2 \text{ O}, \text{Az}^2 \text{ H}^4 \text{ O}.$

Now, this latter formula, in which we find all the elements of urea, is precisely that of cyanate of ammonia. This identity was discovered by M. Wöhler; and it has been further found that, on applying heat to this salt, it becomes changed into urea. It is possible, then, that during the slow combustion of the azotised matters of the blood, the formation of urea may be preceded by that of cyanate of ammonia. No one has looked for the presence of this body in the analyses of the blood hitherto made; but, certainly, it is a subject which deserves the greatest attention.

In admitting, however, this identity of urea with cyanate of ammonia, we are led a step further in the consideration about which we are engaged. In fact, the two bodies which constitute this salt are veritable products of oxidation. Cyanic acid is the oxide of a body— $\text{C}^2 \text{ Az}^2$ —cyanogen; and ammonia, in the salts which it forms, being united to the elements of water, represents the oxide of— $\text{Az}^2 \text{ H}^2$ —ammonium. Urea is thus brought within the general principle which we find so constantly pervading the functions of animal life. It is manifestly derived from the oxidation of the azotised materials of the blood, and from their tendency to pass into cyanic acid and oxide of ammonia; and it is, moreover, a product so highly oxidised that it could be exceeded only by burning its elements in such a manner as to give birth to nitric acid, by the combustion of the nitrogen itself. Now, in this process there would be a great consumption of oxygen, and but little, if any, production of heat. The operation would thus become useless. Nature then avoids a wasteful expenditure by checking the combustion of the azotised matters so soon as they are converted into cyanate of ammonia, which is itself immediately transformed into urea, by an isomeric change of its elements, at the very moment of their production. On the other hand, cyanogen and ammonia might be burned with a different result: the one producing carbonic acid, the other water, and both, at the same time, liberating their nitrogen: a circumstance which would account for the exhalation of this gas, as stated by MM. Dulong, Despretz, and Boussingault. The above considerations fully prove, that the production of urea takes place in the body of the animal by virtue of the same principle which directs the formation of carbonic acid and of water. In one word, the animal is incessantly producing oxidized bodies—oxides of hydrogen, of carbon, of cyanogen, and of ammonium. All the products which may have passed into the blood, and which have thus aided in the sustenance of life, are consequently resolved into the foregoing bodies. The lung, with the aid of the skin, eliminates oxide of carbon, that is to say, carbonic acid. Oxide of hydrogen, or water, escapes along with the other fluids formed in the body. Oxide of ammonium, which in itself might prove injurious to our organs, is converted by the oxide of cyanogen into a soluble product, which is ejected from the system by the kidneys: here, then, we see the true agent in the production of urea, as also the part which it plays among the phenomena of life.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Tuesday, Dec. 29:—E. Archer, W. L. Dudley, R. B. Roscow, J. White, W. Morgan, and F. W. Richardson.

## ORIGINAL CONTRIBUTIONS.

### OBSERVATIONS AND EXPERIMENTS ON THE SOURCES OF ANIMAL HEAT:

*Showing, in Opposition to the Theory of Baron Liebig, that there must be some other Source or Sources of Animal Heat, besides the Process of Combustion.*

By ROBERT RIGG, F.R.S.

#### SECOND NOTICE.

Baron Liebig is a proficient in a sort of aërial architecture. Theory rises upon theory, and by this giant in animal and vegetable chemistry, Pelion is piled upon Ossa. But the whole structure rests upon a very limited foundation of statical fact and proof, and it is only necessary to examine and test the solidity of the foundation, in order to judge of the value of the superstructure.

In my last communication it was shown that this distinguished writer, in adopting the experiments of M. Dulong and M. Despretz to his theory of the sources of animal heat, had overlooked a great fact in the animal economy; namely, the latent heat of the vapour which passes from the body of animals—a fact universally admitted by both chemists and physiologists, and one which is recognised by himself in other parts of his research.

In his work on Animal Chemistry, third edition, he treats of the food and heat generated by man, by pigs, by the horse, and by the milch cow. The sources from whence man derives heat are illustrated by an assumed case, which I shall, in another communication, compare with an actual case, and experiments made especially for the purpose. The sources from whence the horse and the cow derive their heat, Liebig illustrates by experiments. In all cases he assumes "that it is especially carbon and hydrogen which, combining with oxygen, serve to produce animal heat." At page 13 in this work he says, "According to the analyses of Boussingault, a pig five months old, weighing  $66\frac{4}{10}$  lb., gives out daily  $11\frac{1}{2}$  oz., a pig eight months old, weighing 120 lb., gives out daily  $21\frac{1}{10}$  oz. of carbon, in the form of carbonic acid (that is, for equal weights, very nearly equal quantities); a horse consumes in the same time  $79\frac{1}{10}$  oz., and a milch cow  $70\frac{3}{4}$  oz., of carbon"; and, after directing attention to the heat which will be evolved by the hydrogen in the food combining with inspired oxygen, he adds (at page 45), "It cannot be doubted that the heat produced by the process of combustion going on in the body is fully sufficient to explain both the continual evaporation from the body and its constant high temperature."

This process of combustion is described in the following manner at page 21:—"The animal body acts, in this respect, as a furnace which we supply with fuel. It signifies nothing what intermediate forms food may assume, what changes it may undergo in the body, the last change is uniformly the conversion of its carbon into carbonic acid, and of its hydrogen into water; the unassimilated nitrogen of the food, along with the unburned or unoxidized carbon, is expelled in the urine or in the solid excrements. In order to keep up in the furnace a constant temperature we must vary the supply of fuel according to the external temperature, that is, according to the supply of oxygen."

The heat evolved by the formation of carbonic acid in the animal system is given by Liebig as follows:—"13 $\frac{9}{10}$  oz. of carbon, which are daily converted into carbonic acid in the body of a soldier, gives out as much heat as would suffice to heat  $74\frac{1}{2}$  lb. of water from 32° to the boiling point, or to dissipate in vapour  $11\frac{3}{10}$  lb. of water." Hence the conversion of 7.68 parts by weight of carbon into carbonic acid will generate as much heat as will convert to vapour 100 parts of water at the temperature of the human body. And, as shown in my former communication, he makes his calculation for the combustion heat of one gramme of carbon, 15,404° of Fahr., and of one gramme of hydrogen 62,634°.

The theory proposed by Liebig on the sources of

animal heat is intended to meet every condition of the animal economy—of the horse fed on corn as well as the horse at grass, though the food of the latter does not contain more than from six to ten per cent. of its weight of carbon, and a very small proportion of hydrogen; of the ox fed upon oil-cake, dry hay, meal, and little water; and of the milch cow which subsists upon food containing much water; of sheep exposed to the severity of winter, and often subsisting almost exclusively upon turnips, which do not contain more than from 4.2 to 4.8 per cent. of their weight of carbon, and about 95 per cent. of oxygen and hydrogen in the proportions in which they form water.

Were it not for the difficulties accompanying a correct determination of the quantity and constitution of the animal excretions, it is evident from what is here stated, that the subject under consideration would be simple, easy, and conclusive. A calculation made upon the constitution of the turnip, for example, according to the data above mentioned, would prove that the carbon which it contains would only convert to vapour two-thirds of the water it contains; therefore a sheep fed on turnips must either pass by excretion much water, or derive heat from some other source, in order to convert so much water to vapour.

To enter upon a detailed examination of many cases bearing upon the subject of the sources of animal heat is uncalled for: for the theory proposed by Liebig, if correct, must meet every case, and one well-authenticated experiment in which it fails will be sufficient to prove it erroneous. Now, it happens that there are very few experiments described in his work on Animal Chemistry, which, strictly speaking, can be applied to this subject; but the examination of one in particular, which is described, is sufficient to prove, in the most conclusive manner, that the carbon and the hydrogen in the food consumed by animals will not furnish sufficient heat by combustion for all the purposes in the animal economy. The experiment was made by M. Boussingault(a), and given in a tabular form in the Baron's work already referred to. The one which claims our particular attention was made upon a milch cow and her food. The cow had been kept upon the same kind of food for several days previously to the 19th of May, the first of the three days of experiment. Each article of food was weighed and analysed, so, also, the milk and the other excretions. In the following table is the mean for twenty-four hours.

Food consumed by a cow in twenty-four hours. (b)

Articles of Food.	Weight fresh state.	Weight in the dry state.	Car-bon.	Hydro-gen.	Oxy-gen.	Nitro-gen.	Salts and earthy matters
Potatoes	15000	4170	1839.0	241.9	1830.6	50.0	208.5
After grass	7500	6315	2974.4	353.6	2204.0	151.5	631.5
Water	60000	..	..	..	..	..	50.0
Total	82500	10485	4813.4	595.5	4034.6	201.5	889.

Excretions of a cow in twenty-four hours.

Excre-tions.	Weight fresh state.	Weight in the dry state.	Car-bon.	Hydro-gen.	Oxy-gen.	Nitro-gen.	Salts and earthy matters
Excre-ments	28413	4000.0	1712.0	208.0	1508.0	92.0	480.0
Urine	8200	960.8	261.4	25.0	253.7	36.5	384.2
Milk	8539	1150.6	628.2	99.0	321.0	46.0	56.4
Total	45152	6111.4	2601.6	332.0	2082.7	174.5	920.6
Total of first part of this Table	82500	10485.0	4813.4	595.5	4034.6	201.5	889.0
Diff. + or -	37348	4373.6	2211.8	263.5	1951.9	27.0	31.6
	—	—	—	—	—	—	+

The figures which more particularly concern our present purpose are in this line of difference. In them we have, according to Liebig's theory, for—

(a) "Ann. de. Ch. et de Phys.," lxxi., 113.

(b) The weights in this table are given in grammes—1 gramme=15,444 grains.



Sources of animal heat.	Carbon which combined with oxygen, and formed carbonic acid	Grammes. 2211·8
	Hydrogen do. do., and formed water (263·5 — 244 = ) 19·5 grammes, and which, according to this "corrected calculation," may be represented by	79·2
	Total	2291·
Water which passed from the body as vapour.	Hygroscopic water (37348 — 4373·6 = )	Grammes. 32974·
	Oxygen in the dry food as in water 1952·	2196·
	Hydrogen do. do. 244·	
	Water formed by the combustion of 19·5 grammes of hydrogen . . . . .	175·
Total		35345·

The heat generated by the combustion of as much carbon, and hydrogen as is equal to that generated by the combustion of 2,291 grammes of carbon must—if Liebig's views on the sources of animal heat be correct—be sufficient to raise the temperature of 15,000 grammes of potatoes, 7,500 grammes of hay, and 60,000 grammes of water, together with that of the inspired air, to the temperature of the body of the cow; to convert to vapour 35,345 grammes of water at 98°; and also to supply that heat which was radiated from the body of the animal.

As the experiment was conducted in the month of May, we may calculate for the temperature of the potatoes, hay, and air at 65°, and the water at 60°; to bring these to the temperature of the body of the cow would require for the—

	Grammes of carbon.
Potatoes the combustion of about . . . . .	30
Hay . . . . .	12
Inspired air . . . . .	64
Water . . . . .	142
	248
And to convert 35,345 grammes of water, at the temperature of the body, to vapour would require the combustion of (100:7·68::35345:)	2,714

Total for these purposes 2,962

According to Liebig's view of the case, there is in the experiment only as much heat generated in the twenty-four hours as would be generated by the combustion of 2,291 grammes of carbon, whilst the heat required for the above-mentioned purposes only would require the combustion of 2,962 grammes—671 grammes more than is shown in the experiment; or, in other words, that which, according to Liebig, is the only source of animal heat produces only 77 percent. of that necessary for the animal functions, without calculating for that evolved. If to this we add the amount of carbon necessary to supply the heat evolved from the body, the deficiency will appear greater.

I am not in possession of information on which reliance can be placed for the amount of heat evolved to surrounding objects by large animals. But, if we calculate for this by assuming that the rabbit and the cow evolve heat proportionately to their weight, we may in all probability approximate to this amount. A young rabbit which weighed four pounds evolved 3,320° of heat in an hour. One rabbit, upon which Despretz experimented, evolved in one hour and thirty-six minutes 8,226°, which is 5,141° per hour. Let us suppose that this rabbit weighed five pounds, and the cow upon which Boussingault experimented weighed 700 pounds. Assuming that these animals evolved heat proportionate to their weight, the cow would evolve nearly 70,000° per hour, or 17,280,000 in the day—as much as would be generated by the combustion of 1,122 grammes of carbon.

By this calculation it appears, that if the carbon and hydrogen in the food, on combining with in-

spired oxygen, be the only source of animal heat, the deficiency in the twenty-four hours is equal to what would be generated by the combustion of (671 + 1,122 =) 1,793 grammes of carbon, or as much as by combustion would raise the temperature of the cow from the freezing point of water to that of the usual temperature of her body, twice in the twenty-four hours.

Thus, upon a moderate computation, made according to Liebig's own data, and applied to one of the experiments which he has himself brought forward, it appears that his theory on the sources of animal heat is in error to an extent of 78 per cent.

I need only add, that had Baron Liebig, in illustrating his views on the sources of animal heat, taken the experiment of the cow and her food, to which he had previously referred, and which he has copied in detail, instead of an assumed case, which proves nothing bearing upon the subject, and yet stands in the book as proving everything, he would have had proof as demonstrative as figures could make it, that the heat generated in the animal system is not entirely derived from the carbon and the hydrogen in the food, and that the question whence all the heat of the animal body proceeds, remains to be answered.

Greenford, Middlesex, Dec., 1846.

### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 241.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

Idiots could in former times marry, but it is at present held that *idiots* cannot marry, as marriage is now considered a civil contract, and idiots are held incapable of giving consent. It is *incapacity* which nullifies the contract, and therefore a *lunatic* cannot marry; but during a lucid interval a *lunatic* may marry, and such marriage is valid.

To marry or procure the marriage of an idiot by contrivance is a criminal offence; and to marry a *non compos* when under the protection of the Lord Chancellor is a contempt of Court, and may be punished accordingly.

Lord Portsmouth's was a case of a mixed nature, "not absolute idiocy, but weakness of understanding, not continued insanity, but delusions and irrationality on particular subjects," consequently in such a case there is more room for fraud than if there was absolute idiocy or constant insanity.

It appeared that in February, 1814, Lord Portsmouth was brought to London by his medical attendant, and delivered up to his trustees, Mr. Hanson being one, and then in town. That day week Lord Portsmouth was married to the daughter of Mr. Hanson. The confidential solicitor to the family, one of the trustees, and one, moreover, who had great ascendancy over him, and who owed him every possible protection, married him to one of his daughters! It is unnecessary to state the jealousy with which the law looks at all transactions between parties standing in those relations to each other.

Lord Portsmouth was an automaton in the hands of the Hansons; a mere puppet of the family over whom they had a complete ascendancy and control; he was not a free and rational agent.

The settlement was begun within forty-eight hours after Lord Portsmouth arrived in London—its contents, the mode in which it was prepared, and the concealment of the whole from the friends, and also from the other trustees, some of whom were living in the same house with Lord Portsmouth, all show that there was a conspiracy to circumvent his Lordship.

"The marriage itself, and the circumstances immediately connected with it, do not tend to establish restored sanity; it was neither 'a rational act,' nor was it 'rationally done,' the whole 'sounds to folly,' and negatives sanity of mind. The Hansons, in the mode of planning and conducting the transaction, show that they treated and considered Lord Portsmouth as a person of unsound mind; and Lord Portsmouth, in submitting, acquiescing,

and not resisting, confirms his own incompetency."—*Shelford*, p. 454.

The Court pronounced the marriage null and void, stated that it was effected by fraud and circumvention, and on the latter ground granted the prayer for costs.

A party may himself institute a suit to set aside his marriage on the ground of his own incapacity at the time; but in such cases a stronger degree of proof is required than is considered necessary under other circumstances. A singular case occurred in *Turner v. Meyers*, where the husband brought a suit to set aside his marriage on the ground of incapacity at the time. We find he left home, was wild, flighty, thoughtless, and was even considered by a casual fellow-passenger to be deranged. On arriving in town he meets accidentally in the street, on a Friday, Sarah Meyers, who passes by the name of Mrs. Lee, and on the following Wednesday, by license, they were married, although previously perfect strangers to each other. Witnesses, and amongst them the clergyman and the clerk, were called to prove his propriety of behaviour during the ceremony; but it was argued that much stress must not be laid on this, as it is in the extravagance of the act itself, rather than in the manner of pursuing it, that the proof of madness is to be discovered.—*1 Hagg. Rep.*, p. 414.

The validity of a marriage may be questioned after the death of an alleged lunatic, and an inquiry may then be instituted; but there must necessarily be great difficulty and doubt in such cases.

In *re Browning v. Reane*, the marriage was set aside, as the deceased was held incapable of contracting a marriage from mental deficiency.—*Philimore's Rep.*, vol. ii., pp. 69, 91.

One of the most extraordinary cases of modern times is that of Miss Bagster, a young lady about twenty-three years of age, with a fortune exceeding £4,000 per annum, who eloped with Mr. Newton. A Commission was granted, and sat eleven days; it commenced July 3rd, and terminated July 14th, 1832.

Bagster v. Newton.—Miss Bagster was found to be extremely childish, she had never been annoyed with education, had received the most overweening indulgence from her grandfather, and had never been brought forward by her mother. She was declared to be slow, stupid, violent, giddy, bold, immodest, deficient in acquiring arithmetic; she fought, kicked, threw things and spat at her governesses, was very unruly, and totally ignorant of the value of money. It appears she eloped from the Zoological Gardens under misapprehension, having no thought of marriage at the time. While at the gardens, Mr. Newton suggested her taking a drive with him in his cabriolet, Miss Newton, his sister, saying it would be a capital joke to get into the cab. Mr. Newton then promised to take her to see a lady near the Regent's-park, she consented, but, instead of being taken to this friend, Mr. Newton drove her to Camden-town, where a carriage with four horses was waiting, into which he persuaded her to enter, and it was not till after she had travelled half way to Gretna-green that she knew whither she was going. When she had journeyed a considerable distance she wished to return, but was told she would be laughed at by everybody. They arrived at Gretna-green about one in the morning; the parson was called up to perform the ceremony, and, when she objected to be married, the parson said she *must* go through with it since he had been called up. It appears the marriage was consummated upon more than two occasions, and also previously to the ceremony; and it may be mentioned, that, in signing her name at Gretna, she wrote it thus—*Baxter*, and not *Bagster*. Within a few days she was taken possession of by her friends, and she was examined by a great number of medical men previously to the sitting of the Commission.

It appeared in evidence that she had often read of elopements in novels, and she thought she should like also to run away; but when asked why she ran away with Mr. Newton, she said, "I don't know, but I love somebody else better"; and when asked whether she considered herself the wife of Mr. Newton, she said, "No, because the marriage was not performed in a church, and by books,"



saying, "she did not know whether she could consider it as a marriage or a farce."

Another witness deposed, that she said she thought her elopement a good bit of fun, considered it a lark, and was indifferent as to whom she would marry, having mentioned the names of six gentlemen, but did not include Mr. Newton's. She considered her name Bagster, and did not seem to understand the object of matrimony. She did not know her own age, calling herself twenty-one when she was twenty-three.

It was testified by another witness that she did not consider she had been married, and hoped Mr. Perfect would never hear she had slept two nights with Mr. Newton; treated her trip to Gretna as a joke; and, on inquiry as to what she considered a suitable age to be married, said she would marry at twenty-four years of age. There was a total absence of sensibility as to her marriage, and also as to the importance of marriage; she at this time thought there was no harm in living with several gentlemen. She confessed she was not aware marriage was a very serious obligation, and when asked what she then considered it, said, "Cake, favours, and church."

To another witness she talked about her journey, said she had enjoyed it very much, did not consider herself married, for a proper marriage was "when they went to church with carriages, and had cake and wine, with favours and bridesmaids." To another person she stated she had no particular affection for Mr. Newton, she preferred Mr. Perfect, and must marry him to fulfil an old promise. But to another witness she stated, had she not been treated violently she would have had no objection to return home and quit Mr. Newton, for she liked another better, Mr. Perfect.

Notwithstanding this wish to marry Mr. Perfect, she was always talking of, and expecting to be, Lady Mayoress, and often asked what she should do as Lady Mayoress, as she hoped for and expected an offer from Alderman Kelly, but sometimes adding she thought him rather old; she often inquired whether she should wear feathers as Lady Mayoress; she said her fortune added to the alderman's would be immense, "hers was £700 a year, his £100 a year"; and when asked, no more?—she then said £150 a year.

She could not be taught the value of money, nor could she do a simple sum in addition, not being able to add shillings and pence together. She was perfectly ignorant of how many pence there were in a shilling, of the number of halfpence or farthings in a penny, nor could she tell the number of shillings in a guinea or in a sovereign, nor of sixpences in half-a-crown; and on one occasion she actually gave a sovereign to a beggar instead of a sixpence. She considered fifty sovereigns were twice as much as a £50 note. She imagined £10,000 Four per Cents, produced £100 per annum, out of which she could take a great house at the West-end, keep a number of servants, paying her lady's-maid £30 a year, and six other servants £20 a year each, all out of the £100. She considered the expense of a carriage from about £20 to £30 per annum. She thought there were six weeks in the year, and six days in the week, and as for Sunday that was kept holy.

According to the testimony of a clergyman she had not capacity enough to comprehend the most simple moral and religious duties, and could not be made to understand that falsehood was criminal; she was very immodest before gentlemen. She always laughed when the Lord's Prayer was repeated, treated it as a jest, and did not understand its meaning.

Both before and after her marriage she often spoke most indelicately even in the presence of gentlemen; and we find her one day after dinner, at Alderman Kelly's, relating to Captain Kelly, when left alone with him, all that had passed between her and Mr. Newton, and that in the plainest and grossest terms; and she gave evidence, when before the Commissioners, of the most delicate nature, with the utmost nonchalance, without a blush; her general conduct towards gentlemen having been often noticed to be immodest and improper.

She was occasionally very violent, rendering it

dangerous for persons to remain in her presence; she once attempted to throw a decanter at the head of a governess, and often threw pears, dessert knives, forks, and plates at those who displeased or thwarted her, and once sent her plate, with her dinner on it, at the head of one of the servants. She was particularly revengeful towards her mother, and sometimes tore and scratched her face; and on the day of Alderman Crowder's funeral she was very much excited, and even tore the sleeves off her own dress. When she was subsequently asked respecting her attacks of passion, she said it was not anger that made her violent towards her mother, but something she could not overcome.

It was further deposed by the medical gentleman who professionally attended Alderman Crowder's family, that Miss Bagster was always treated by all who knew her as a person in an imbecile state of mind. The jury having heard the whole of the evidence, including that of two physicians, one of whom declared he would engage in six months to teach her arithmetic and the use of money, and the other, who considered that, when certain defects had been supplied, she would be as capable to conduct her affairs as any other woman, and having retired for about half an hour, brought in this verdict, that "Rosa Matilda Bagster is, since the 1st of November, 1830, of unsound mind, so that she is not fit to take proper care of her goods, chattels, messuages, tenements, &c."

Now, it appears in this case that there was originally considerable weakness of mind, and that the education had been shamefully mismanaged and neglected, the unkindness of the mother and the overweening indulgence of her grandfather tending to oppose her mental progress. There can be no doubt that judicious education would have done something towards extending her ideas; and Dr. Morrison deposed that he would undertake in six months to teach her arithmetic and the use of money; and we find, that although even after her elopement she did not understand the object of marriage and its obligations, thinking there was no harm in living with several gentlemen, yet, at a period subsequently to this, she appears to have been made aware that, "when persons are married they shall not have anything to do with any other man than their husband." It is worthy of remark that persons of weak mind may be taught to make statements without understanding their value or even their meaning.

Now, it is only proper to inquire whether Miss Bagster possessed sufficient disposing knowledge or capacity to make a will; for it is difficult to conceive how she could consistently dispose of thousands of pounds, when she was so ill versed as to mistake a sixpence for a sovereign, or to imagine fifty sovereigns to be worth twice £50 in notes. It is true she was conscious of her ignorance, and therefore was not insane, but still the ignorance was so great, her ideas were so puerile, that she was unable to act with any proper or provident management, and was liable to be robbed by any one. The important point to be ascertained was, whether she was capable to manage her own affairs? and such a point can never be determined by referring to precedents, and therefore a jury is appointed to decide in these cases of doubt and difficulty; and certainly trial by jury, although sometimes defective, is, upon the whole, liable to less abuse, and subject to less error, than any other form of investigation or judicial trial.

That Miss Bagster was not capable of managing her estates or monetary affairs, I suppose few can doubt, for a person stating that out of £100 a year, she could take a great house at the West-end, keep a number of servants, paying a lady's maid £30 a year, and six other servants £20 a year each, and this all out of £100 a year, shows a decided incapability; and this opinion is of course the more strengthened by the lamentable deficiency manifested respecting the number of farthings or of halfpence in a penny, of sixpences in half-a-crown, or of shillings in a sovereign; there was not an ignorance upon one particular monetary question, but the deficiency was general.

And then, again, as to her competency to enter into the civil contract of marriage, we find, even after her semi-unintentional elopement, that she

treated it with such levity; that her ignorance respecting its object and responsibility was so lamentable; that her conduct was habitually so immodest, that her numerous preferences were so vacillating; that, while she must marry Mr. Perfect to perform an old promise, yet she expected to be Lady Mayoress and to be united to Alderman Kelly: all these, together with her misconception respecting her own fortune, but more especially that of Alderman Kelly, show that there was great want of necessary comprehension. In reviewing such a case, it is not one object, one peculiarity, or weakness upon one point, but it is the general imbecility which so plainly manifests itself, and which induced the jury within half an hour to find Miss Bagster incompetent to manage her own affairs.

Supposing this unfortunate young lady had, during one of her paroxysms of rage, not only thrown the decanter, but had actually killed her governess, and supposing all the evidence just detailed had been adduced in court to prove her want of capacity, or, as the defence would then have had it, her insanity, and supposing, notwithstanding this, the jury had pronounced her guilty of murder, and the judge had left her for execution, would not the whole press, nay the whole British public, have risen *en masse* to enter their solemn protest against such judicial murder? Her outbursts of uncontrollable passion, and her violence to her mother, and this not depending on anger, but on something she could not overcome, would have been strongly dwelt upon; her childishness, her want of ordinary capacity and of self-control, together with her immodesty, would have been strongly dilated upon, and most probably would have been considered sufficient to have acquitted her on the ground of insanity.

Miss Bagster was incompetent to manage her own affairs; she was liable to be robbed, and was unable to act with prudence or caution; she might have given two £50 notes when imagining she paid a bill of fifty pounds, and possibly the same error would have occurred had it been £50,000 instead of £500.

Now, Mr. Davies was able and competent not only to manage his affairs, but his judgment on business matters was so sound, his taste so acute, and his knowledge so great, that he not only made a most handsome income, but also amassed money to a considerable extent.

It seems to me that the point to be ascertained by a jury is not as to whether the person may possibly, at some future or remote time, be of a disposing capacity, but *is* he at the time of inquiry capable of managing his own affairs?

A man who cannot reason, or whose rational faculty fails him, cannot be said to be *actually* rational, although he may by time become so. Or a person whose capacity is so limited, so defective, that she cannot understand the simplest question respecting the arrangement of her affairs, is not actually at such time capable of managing her estate, and so the jury should find: for, did they not so do, such a person, being imbecile, incompetent, childish, may be robbed and injured in a thousand ways. A child left without parents is not considered competent to manage his estate, though he may soon, by age and reason, become so; and his affairs are governed, till he is of age, by tutors or executors. No one presumes that he is competent while he is a child, his affairs are consequently regulated by others; so I conceive it should be with one who is imbecile, although by time he may gain sufficient sense to guide his own affairs; but, until that time actually arrives, he should be placed under the guidance of others.

When a person is found of "unsound mind," whether an imbecile or lunatic, his person and property are placed under the authority of the Lord Chancellor, who delegates his power to the Committee; that is, the Lord Chancellor, by letters patent under the Great Seal, commits to one or more persons, during pleasure, the custody of the person and the management of the property of the lunatic, with a reasonable allowance out of his estate for the maintenance of himself and family.

The sum allotted, of course, depends upon the lunatic's income: thus, in a recent case where I



exceeded £13,000 per annum, the Lord Chancellor not only allowed £500 to purchase a carriage and horses, giving his permission for the lunatic to remove from his mansion to another considered more suitable, but actually ordered £250 per annum to be paid for the support of charitable institutions; this sum having been annually bestowed by the family for a great number of years.—*In re Popham*, *Law Times*, July 6, 1844, p. 259.

Those who are connected with the lunatic by the ties of consanguinity generally propose the Committee to a Master in Chancery, as he certifies whom he considers the most fit and proper persons to form the Committees of the person and estate of the lunatic, also who are his heirs at law, and his next of kin. The Master's report is not, however, conclusive, but, by presenting a petition to the Lord Chancellor, the Master may be directed to review his report.

Where the property is very small, Committees are sometimes appointed by the Lord Chancellor without referring to the Master.

The Committees of the *person* are generally selected from his next of kin, not being the heir-at-law. While the blood relations should generally be preferred, there may be special reasons why in some instances they should be excluded. Where the *non compos* is a female, and unmarried, the custody of her person is generally given to one of her own sex; but, unless there are strong reasons for the exclusion, the custody of the person of a married woman is given to her husband, so also that of a married man to his wife; where, however, a wife prejudices the interest of her husband by following out any particular plan of her own as to treatment, another person is sometimes named to act with her.

The heir-at-law, having the greatest interest in taking care of the property, is generally selected as the Committee of the *estate*. In many instances a stranger has been appointed; and, occasionally, the Committee of the person is also the Committee of the estate.

Where it is considered inexpedient to trust the Committee with the receipt of the rents and profits of the estate, a receiver may be appointed for that purpose.

The Lord Chancellor settles what will be a proper allowance for the maintenance of the lunatic and his family out of his estate, and generally from the Master's report, who makes the necessary inquiries and investigations; the sum is generally liberal, and the lunatic is allowed every comfort which his circumstances permit.

In making, under peculiar circumstances, any allowance for the brothers or sisters, or their children, the Court always acts in the same manner it conceives the lunatic would have done if of sound mind. It is a rule not to vary or alter the property of the lunatic so as to affect the right of succession to it.

A Commission may be directed against a *non compos* abroad, and if by evidence a jury are satisfied the party is lunatic, even without inspection, they may find so; if not satisfied, they return no verdict.

A person found lunatic by a competent jurisdiction abroad may be considered a lunatic here.—*Vol. 2, Ves. Rep. (Jun.)*, p. 587. But a curious case has recently occurred, where a gentleman who had been found incompetent escaped to France. The French physicians considered him of sound mind, which was opposed to the previous and subsequent opinions of the English physicians. *In re Dyce Sombre*, a lunatic foreigner, who wished to supersede his Commission. The principal delusions appear to have been dependent upon an unfounded jealousy of his wife's fidelity.

Mr. Sombre made his escape from this country to France, and was there received into society as a sane man. The British Ambassador made a formal demand to the French Government for his extradition; and, in consequence, an inquiry as to his sanity was directed by the French authorities, when the most eminent physicians in France reported as to Mr. Sombre's sanity. The case subsequently came under the Lord Chancellor's notice in England, and his Lordship delivered a very long judgment, and refused the application to supersede the

Commission, saying—"It is the duty of the Court not to supersede a Commission once issued, on the supposed ground that the party had recovered, unless upon clear and satisfactory evidence." The fact was, the English physicians were opposed to the opinions of the French, and considered Mr. Sombre still of unsound mind.

The Lord Chancellor subsequently stated that the Court would not interfere to prevent Mr. Sombre from living in France, if he preferred returning to the Continent; and a recommendation was at the same time given to the wife, as one of his Committee, not to interfere, as her presence might operate injuriously on the lunatic. (For full particulars of this interesting case, see *Law Times*, vol. iii., pp. 317—485.)

If an endeavour is made to remove a *non compos*, and if the Lord Chancellor considers the party a fit subject for a Commission, he may issue an order to prohibit such removal.

An order may be given by the Lord Chancellor to any persons whom he may authorize to visit an alleged lunatic, as the patient's friends, solicitors, medical advisers, and others; and, by the new act, the Commissioners have also the same power.

The expenses of a Commission are enormous; and it is a subject worthy of inquiry, whether an ordinary jury could not as efficiently decide upon these cases as when regulated by the opinions of a much more numerous and extravagantly paid special jury, sitting in Commission. An ordinary jury is considered competent to decide a point involving the life of an individual, and yet is considered incompetent to form a judgment as to whether a person is or is not fit to be intrusted with the management of his own affairs; surely if twelve men can give a sound opinion upon which hangs the life or death of an individual, it cannot be necessary to have double that number to resolve whether an alleged lunatic is or is not of sound mind? Another point worthy of inquiry is, whether a jury should be selected from the neighbourhood in which an alleged lunatic resides, especially if in the country?—for we are all aware of the bias and prejudice which almost invariably result from constant rumour or report.

Even where no doubt can exist as to insanity, still the most prolonged investigations are considered necessary, occupying sometimes eight, ten, and even eleven days, the expenses of each day being fearful; whereas, had the life been concerned instead of the property, and had twelve ordinary jurymen investigated the facts, instead of twice that number of extravagantly paid special jurors, a conclusion would, probably, have been determined in one sitting.

(To be continued.)

## OBSERVATIONS ON OPHTHALMIC SURGERY.

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### STRABISMUS CONVERGENS, AND ITS TREATMENT BY OPERATION. PART I.

*Cause of squint; single squint; supposed alternation of the squint; explanation of the deception. Mode of detecting which eye squints; but one operation necessary. Double squint; the lesser squint sometimes overlooked. Occasional squint.*

In the following observations on strabismus convergens it has been my desire to embody in a general and, I hope, a practical manner the main facts of importance that I have deduced from my own practice.

I shall avoid noticing the opinions of others except cursorily, for the sake of illustrating or establishing my own views. Neither shall I enter into physiological inquiries concerning the actions of the orbital muscles; assuming that, in the production of the squint, the internal rectus alone is at fault. I presume that a definition of squint is unnecessary.

*Cause of Squint.*—In a very large number of cases, of which short histories were taken, not a single one appears to have been congenital. In some few the squint was observed several months after birth, and in a still smaller number several

weeks only. In such instances those who believe in the existence of congenital squint have questioned the accuracy of the parent's statements. They also argue that most squints are formed gradually, and that it is very probable they existed in so slight a degree at the time of birth as to be overlooked. When it is considered how soon after a child is born it may squint, and without any visible cause, there appears to be some probability in the idea of congenital deformity, but the question is one of curiosity rather than of usefulness. The age at which most of the squints were detected, and that of a large majority, was between the fifth and the ninth years; this is what we should be led to expect, knowing the frequent concurrence between the deformity and the diseases of early life. When the squint has been sudden, and the patient brought under early notice, there is not much difficulty in ascertaining with apparent accuracy the predisposing causes; but in the mass no such knowledge can be obtained, the reputed causes being often as fanciful as they are varied and absurd. The healthiest children are to be found among the squinters. An analysis of the causes, if it partook of any practical character, would be of value to the practitioner, but the only one that I could give would be quite useless.

Mechanical causes are not so common as supposed: I mean the various impediments to the vision by opacities in the lens or the cornea, or changes in the form of the pupil. Of what may be called the essence of the affection, beyond attributing it to the agency of the nervous system, I am not able to speak.

Strabismus may exist in one or both eyes. I shall treat of the single variety first.

*Single Squint.*—It has been denied that one eye is ever the sole seat of the affection; but that is evidently a great mistake. It would be much nearer to the truth to say that only one eye is ever affected. When a patient with a squint, say of the right eye, looks directly before him, the eye may be quite inverted while the other is straight; or it may squint less, being nearly in the centre of the orbit, the other eye apparently partaking of the squint, which would seem to be divided between the two; and then the most accurate observer shall not be able to say which is the faulty eye, should he have no previous knowledge of the case. If the patient be now directed to look to his right, there may still appear to be a double squint; or, perhaps, the eye becomes fully abducted or nearly so, while the left will be preternaturally adducted even to such an extent as to hide a portion of the cornea.

*Supposed Alternation.*—When the right eye is thus improved, it is generally considered that the squint has alternated by "an abnormal association of the nerves," but this expresses nothing. For the supposed alternation to exist in its most entire manner two conditions are requisite:—1st, power to abduct the squinting eye; and, 2ndly, good vision in it: for should there be (through a deficiency of power in the external rectus muscle) inability of abducting the organ, or should the sight be imperfect, in which case the employment of the eye is neglected, it can never be seen as an involuntary or, more correctly, unconscious act. There must, then, be considerable effort employed to produce it. Sometimes the eye is a fixture, being immoveable.

*Explanation of the Deception.*—It is impossible to employ any one of the recti muscles singly; they move by an association which cannot be destroyed by any voluntary effort. But it is quite probable that the amount of volition which is required to produce a contraction in one muscle may be too great or too little for a similar effect in its associate in action.

When a squinting eye is at rest it is invariably adducted, and the extent of adduction will depend on the degree of unnatural contraction that its internal rectus has acquired. Now, for it to be abducted, what shall be required on the part of its external rectus? Why, the employment of a greater amount of volition, and consequently more muscular power called into action, than if the internal rectus were not in an abnormal state! The additional volition is then unavoidably directed to its associate muscle of the other eye; the internal



rectus, which having been made an over match for the antagonizing muscle, turns the eye unduly inwards. I have often observed that the degree of convergence is not always uniform in the same patients. Occasionally there will be a spasmodic adducting action.

When the eye has ceased to obey the ordinary volition which is necessary for its abduction, and is almost permanently adducted, it can sometimes be acted on, and carried to or beyond the centre of the orbit by a very great effort. But the external rectus is fatigued under such exertion, and becomes weakened for a time.

*Mode of Detecting which Eye Squints.*—Sometimes the detection of the squinting eye is easily accomplished, but more frequently it requires toil and practice and patient examination, to arrive at a satisfactory and certain diagnosis.

I have seen the wrong eye operated on several times, and by men who justly stand high in the profession. When I am at all in doubt I cause my patient to cover or close one of the eyes, and direct the other forward to some object, then open the covered one; it will be adducted, and, if its internal rectus be in a normal state, the first wink generally restores that eye to its proper place, while the other is thrown into adduction. If the squinting eye should be closed, on opening it adduction will be seen, but unless the eye be specially employed it will remain in that position. The same result will be obtained under different trials. For the ease to be thus plain, there must almost of necessity be a want of power in the external muscle of the squinting eye, or an imperfection of its vision, so that it does not receive the stimulus of volition. When neither of these exists, and the eye can be moved about freely, the squint will appear during examination to shift from eye to eye, and remain in either so definitively that it requires a long acquaintance with such cases not to believe that the internal rectus of each eye is equally affected.

But it is not impossible to be able to discover that one differs from the other in its movements, having a greater tendency to remain adducted, if the experiments which may be made are sufficiently varied, carefully conducted, and the muscles of both eyes fatigued. I have stated that a squinting eye, when at rest, is invariably adducted, and, if the surgeon should see it while thus undisturbed, much trouble and doubt will be spared.

When, however, a patient is being examined, he is generally excited, and exerts the orbital muscles unnaturally, and then it is out of the question to obtain a sight of the squinting eye in even a moderately quiescent state. Owing to this I have been obliged to wait until the second visit to detect the faulty eye.

A case much to the point occurred in a young gentleman I had examined, and in whom I observed the faulty eye without any difficulty; but when I took him into an adjoining room to be operated on, my assistant remarked, "that one eye seemed to squint as badly as the other." He had become frightened, and I really could not now perceive that either eye was worse than the other. However, I operated according to my decision, and was gratified at the result.

A knowledge of the following conditions will generally be of much assistance in doubtful cases:—Greater power of adduction when looking at the nose, particularly at its root; less power of abduction, especially if it be often performed; a slight imperfection of vision, or a difference of focal range; a deviation from the horizontal position, the eye being directed upwards or downwards; retraction of the globe. Except when the case is palpable, and even not always then, the patient is not aware which is the defective eye.

*But one Operation Necessary.*—It is quite certain that one operation cannot cure two squinting eyes. When a person has both eyes turned inwards, two operations are absolutely necessary—just as much so as if each eye were in a different individual. When, on the other hand, only one eye is turned inwards, an operation on that alone is sufficient. Dividing the internal rectus of the other eye may or may not produce permanent abduction of it, but cannot in any way affect the squinting eye.

What do these facts establish with regard to the

so-called-alternating squints? They show clearly that, although both eyes appear to be affected, in reality they are not; since one operation will restore them to parallelism. When I have been very much puzzled to detect which was the faulty eye, in consequence of the difficulties above described, one operation has produced all that could be desired—the eyes have been made parallel by it. If, in such cases, the internal recti of the uneut eyes had acquired a new sphere of action, they would, and must, have inverted those eyes, and two operations in each instance must have been rendered indispensable.

*Double Squint.*—I have met with very few cases of this kind—so seldom, indeed, that they may be called exceptions.

By double squint, I mean that each internal rectus shall have acquired a new and independent sphere of action, whereby both eyeballs are turned inwards at the same time. The discrepancy between my statements and those of others may, I think, be reconciled, when it is remembered that the state I have described as single squint, with a secondary and wholly different condition of the other eye, and admitting of being cured by one operation, is usually regarded as double squint.

In well-marked double squint, both eyes have not, as far as I have seen, been equally affected. There has been a difference in the amount of inversion, and a disparity of vision, although in both eyes it may be defective. In a state of rest both eyes are inverted, one of them generally very much. The abduction of either (but particularly the one most affected) beyond the centre of the orbit requires much effort, and is followed by a most inveterate adduction of the other.

It might be supposed, and with sufficient plausibility, that the exaggerated action of the internal rectus of the sound eye will, in time, produce in it a new and independent sphere of contraction, and render it an undue antagonist for the external muscle—in fact, cause a permanent squint. If such is the case it must be very seldom: for it is well-known that single squint exists for years without the other eye becoming affected. I have operated on patients, who had squinted for above thirty years, in whom there were the conditions that may be considered favourable for the implication of the other eye, viz., good adducting power, and good sight, enabling the squinting organ to be used freely, and consequently the internal rectus of the other eye to be unduly acted on, and yet no double squint has been produced. But it is not necessary to seek for the formation of a double squint in such a cause.

*The lesser Squint sometimes overlooked.*—I doubt not that, ere this, the following question will have suggested itself to many of my readers:—In the cases spoken of under the head of single squint, in which it was difficult to diagnose the squinting eye, have I ever found that, after the operation on that eye, the other exhibited a squint also? I must say yes, I have met with a few such cases; but I have always had a suspicion about the necessity of a double operation. The squint was so slight that it could not be detected with accuracy. Existing alone, there would have been no difficulty; but, complicated with the other, there was a perplexity.

This is just one of those nice practical points for which definite rules cannot be laid down. All that a writer can do is to hint at them. Should another question arise—Has a double operation always been required when I thought it would be? No; I have been deceived frequently, and particularly in early practice, to the delight of my patients and myself.

*Occasional Squint.*—My only knowledge of the double form is confined to epileptic, apoplectic, and inebriated persons. There may be a doubt of the propriety of classing even these under the present head.

In the single occasional squint, the deformity is more marked sometimes than at others. The term periodic, which is commonly used for this sort of squint, is not a correct one, for the squint does not return regularly in a certain period of time. The following outline of one of the cases that applied to me will serve as an example of those I have

seen. Young people and adults are alike the subjects of it. I have not met with many cases.

A. H., aged thirteen, applied at the Central London Ophthalmic Institution, March 1, 1845, to be treated for chronic ophthalmia. While being questioned about his complaint, he was observed to squint with the right eye, and in a few seconds the eye was straight again. Although he was generally unconscious of the squint, he could produce it at will, so as to conceal almost half of the cornea, and this, while the other eye was straight, by looking intently at any object. He was not aware that the eye was turned inwards, except from the double vision produced. He could give no history beyond that he had been troubled with double vision for many years. The focal range of the two eyes differed, the squinting eye being the shorter.

(To be continued.)

## OBSERVATIONS ON SOME OF THE MORE IMPORTANT POINTS CONNECTED WITH ERYSIPELAS, AND ITS TREATMENT.

By HENRY SMITH, M.R.C.S.,

Late House-Surgeon to King's College Hospital.

(Continued from p. 245.)

Having considered some of the causes of erysipelas, and the mode in which the disease may be propagated from one to another, I shall proceed to make some observations on another important point, namely the complications which occur during an attack.

The tissues most frequently seized upon by erysipelatos inflammation are, undoubtedly, the skin and areolar tissue of the body. But the other tissues of the body will be found to be frequently involved as well: mucous membrane, serous membrane, synovial membrane, and even cartilage, are frequently laid hold of by this formidable poison.

Mr. Lawrance seems to doubt the fact of mucous membrane becoming affected with erysipelatos inflammation; but inflammation of the throat is by no means a rare complication, especially when the head and face are affected. We sometimes see that a person who has been much exposed to the contagion of erysipelas becomes feverish and languid, and complains of soreness of the throat. If we examine this part we shall find considerable redness and swelling of the fauces and palate, and a fever of a low kind will exist. A friend of mine was attacked with erysipelas of a most severe description. It travelled nearly all over the body, not sparing the pleura. Amongst other parts the throat was violently attacked. His life was with difficulty saved. In such instances the great danger results from œdema of the glottis and folds about the upper part of the larynx. Among other interesting cases which Dr. McDowell has brought forward in the sixth volume of the "Dublin Medical Journal," there is one which terminated fatally. On *post-mortem* examination there was found "œdema of the glottis and aryteno-epiglottidæan folds, so as to hang on the larynx and nearly close it." Dr. Watson attributes the fatal event in this disease to three causes: œdema, asthenia, and apnea, from œdema of the parts at the entrance of the larynx. It is highly probable that the whole of the intestinal track, from the mouth to the anus, is affected in some very severe cases. Frequent and obstinate purging sometimes exists, and after death inflammation, and ulceration even, of the mucous membrane of the intestines has been observed. I have lately attended a case where the purging was most obstinate, and which could not be checked by the most powerful remedies, until several days had elapsed, and the patient was much exhausted. This happened in one of those cases of erratic erysipelas which prove so very tedious and troublesome. The most dangerous complication, perhaps, is when the great serous membranes, the pleura and peritonæum, are involved in the disorder. It frequently happens that, in very severe cases, these tissues are attacked; everybody who has been much in the habit of studying morbid anatomy in the deadhouse of a hospital must have observed this fact. When these parts do become inflamed, I believe that, for the most part, a fatal result will take place. Large



collections of matter take place in the cavity of the pleura, and the peritoneum is covered with a layer of imperfectly organized lymph.

Another complication is inflammation and congestion of the lungs: this I have especially noticed during the last year. As the whole of the blood has to be circulated through these organs, it is probable that they would suffer more severely when the fluid is poisoned by some specific virus; and we see such is the case, not only in this disease, but in other allied disorders. In typhus, one of the most frequent complications is an attack of pneumonia or bronchitis, and the poison of measles seems to be particularly directed towards the lungs. As I have seen this complication rather frequently, and as it is one we are liable often to meet with, I shall dwell more particularly upon it, and mention the symptoms which denote it, and shall also bring forward two or three striking cases.

If, during an attack of erysipelas, the respiration becomes at all accelerated, the *alce nasi* distended preternaturally, and if the colour of the eruption changes to a dusky hue, we may be certain that the lungs are implicated in the mischief, although there may be no cough nor expectoration sufficient to call our attention. By the use of the stethoscope we shall ascertain the existence of disease, by hearing deficient breathing, accompanied with mucous râles and sharp or loud rhonchi. In some cases there will be dulness and bronchial breathing. Very often there is little expectoration; but in some cases there will be a considerable quantity of loose mucus, either slightly tinged with blood, or mixed with it in large quantity.

A young woman was admitted into King's College Hospital with a wound in the scalp. Erysipelas appeared, and she lay in a very bad state for several days, when difficulty of breathing came on, and the eruption on the face became very dusky in colour. On examining the chest, the left lung was found to be solid. She rapidly got worse, and, notwithstanding every measure calculated to support her, she died within forty-eight hours after the disease of the lung was detected. This girl was extremely feeble and depressed at the time the erysipelas attacked her, in consequence of a severe injury to the head.—A young woman, aged twenty-six, was admitted into King's College Hospital. The head and face were severely affected with erysipelas; she was very delirious and in a great state of depression. At the height of the disease she was noticed to have cough and difficulty of breathing. Abundant crepitus was audible over the lower and posterior parts of the chest. She remained in a very critical position for several days, but at last entirely recovered. There was no expectoration in either of these cases.

I attended a man, aged forty, with phlegmonous erysipelas of the leg and thigh. He was a drinker of much malt liquor and ardent spirits. He lay in a state of great danger for several days, being very delirious, and requiring strong stimuli to support him. On the fourth day I noticed he had a slight cough and some difficulty of breathing, accompanied with expectoration. On listening to his chest, crepitus and sibilant rattles were extensively heard all over the posterior part of the lungs. On the following day these symptoms had greatly increased; the expectoration was very bloody, the cough and dyspnoea very urgent, and it appeared as though he was about to fall a victim to this new malady. In fact, it was the most intense case of bronchitis that I ever saw. He remained in a very perilous condition for some days, but recovered under the use of an immense quantity of ammonia, brandy and water, and blisters to his chest.

I shall not mention more cases, considering that those I have narrated will be sufficient to illustrate this formidable complication of erysipelas. I shall refer more particularly to them when I come to speak of the treatment of the disease.

Inflammation of the membranes of the brain has been considered to be a frequent complication, and there is no doubt that such not unfrequently takes place, as we can judge from symptoms during life, and *post-mortem* appearances.

It is easy to understand that, in consequence of the free communication of the blood-vessels of the interior and exterior of the head, the inflammation of the scalp may readily extend to the parts within the skull; and thus we often find that, in severe cases of erysipelas of the head, the dura mater has become implicated in the mischief.

But, on the other hand, I believe that often a false diagnosis is made, when there is no inflammation at all, in consequence of a certain set of symptoms arising in the course of the disorder, which, although appearing referrible to active inflammation, do not depend upon this, but on a different cause. It frequently happens that, when a person is attacked with erysipelas of the head, certain symptoms referrible to an affection of the sensorium appear. Pain in the head, delirium (which may be active and uncontrollable), stupor, and coma, make their appearance. But, nevertheless, we must be very careful in attributing these symptoms always to inflammation; we must recollect that there is a powerful poison circulating in the system, and that the brain is more susceptible of morbid influences of the kind than any other organ of the body. And here I must again draw the analogy between erysipelas and typhus. In the latter disease such symptoms as I have mentioned were formerly attributed to inflammation of the brain; but now it is pretty well agreed amongst physicians, that these symptoms are, in nine cases out of ten, merely due to the influence of the poison acting upon the brain. And that this is the correct view of the matter is proved by the fact, that those remedies which would do an infinite deal of harm in inflammation are found to be successful, whilst antiphlogistic measures only tend to increase the symptoms and hurry the patient to his grave.

I may as well mention that it was the late Dr. Wells, of St. Thomas's Hospital, who first pointed out that the delirium and coma in erysipelas do not depend upon inflammation of the brain or its membranes; and I see that Dr. Watson's views of the matter are somewhat similar to those I have taken, for he says (whilst speaking of erysipelas of the head)—“In some of these cases the inflammation has extended to the encephalon; in others it is probable that the functions of the brain are disturbed through the febrile derangement of the circulation. When death takes place, and the head is examined, serous fluid is usually discovered between the arachnoid, and in the cerebral ventricles, and the veins of the pia mater are turgid. I have stated before, that I doubt whether such appearances are always to be attributed to inflammation.”—*Practice of Physic; article, Erysipelas.*

One of the most troublesome complications, or rather effects, of erysipelas, which I have yet to notice, is the disposition to the formation of abscesses in the cellular tissue, particularly in the phlegmonoid variety of the disease. I shall dwell more particularly on this point, as I have so frequently witnessed these occurrences, and have seen some remarkable instances of recovery after the patient has been lying for weeks suffering from the constant formation of matter in different parts of the body; and here, again, I must repeat that I shall not quote recorded cases, but shall merely relate such facts as I have actually witnessed.

We frequently find, after the acute stage of the disease has gone off, that collections of matter will form in the part attacked; the patient, although apparently convalescent, remains weak and thin, and does not get on so fast as we should wish. We shall find that abscesses have formed not only in the part of the body originally attacked, but at a distance from it. Thus, in a patient who had erysipelas of the thigh, I have seen, after the inflammation had all subsided, large collections of matter not only in the limb attacked, but subsequent formations in the neck, arm, and tissues of the thorax. We open the abscess in the limb one day; on the next day, perhaps, we find a large collection of matter near the shoulder; this is treated in the same way, and in a few hours afterwards we find another collection near the elbow or wrist. These cases are very troublesome, retard for a long time the recovery of the patient, and sometimes even prevent this taking

place at all. In such cases the collections of matter are enormous, more than could be believed; the matter itself is thin, foul, and unhealthy. Sometimes I have seen it mixed with a large quantity of coagulated blood.

In King's College Hospital, a few months ago, a young child was cupped for inflammation of the hipjoint. Erysipelas followed: she had a most severe attack, and she lay for several weeks in a deplorable condition. Abscesses appeared, one after the other, whilst she lay in this state, in the vicinity of the joints; large sloughs took place on the back and hips, notwithstanding all care to prevent them. She, however, recovered after the lapse of three or four months. She was fortunate in having the constant attention of my friend and predecessor Mr. Duncan, a most careful and vigilant observer of disease in all its forms.

Amongst other situations in which I have seen a large collection of matter after an acute attack of erysipelas, I have lately observed a case where an enormous collection took place under the scapula. It extended into the axilla, and nearly as far as the spine, and so raised the scapula from the ribs, and distorted the body, that a friend who saw the case with me, without knowing the nature of the disfigurement, asked me how long the patient had suffered from curvature of the spine. It is more particularly in the neighbourhood of the joints that I have noticed these collections to take place; in most cases probably the joints themselves are not involved, but yet sometimes they are attacked, and pus is found in their cavities: a case of which I have mentioned before.

After severe erysipelas of an extremity we frequently find one of the most troublesome things is a repeated formation of circumscribed abscesses in the limb attacked, without such forming in other parts of the body. These sometimes form rapidly in succession, and cause great uneasiness and suffering. I have been obliged in such a case to use the knife ten or twelve different times, after a severe attack of erysipelas of the leg. These abscesses are generally superficial, and do not extend far; but sometimes they involve the fasciæ, or cause mischief in the neighbourhood of the outlets of the body. I once saw a case where erysipelas had attacked the buttocks after an operation for fistula *in ano*; repeated abscesses formed, one of which was just over the upper part of the sacrum; although it was laid open, it degenerated into an extensive fistulous sore, four or five inches in length, running for some distance by the side of the rectum, but fortunately not including the gut; it proved most troublesome, and was the cause of the patient being confined to the house for several weeks after the original attack had ceased. In erysipelas of the head there is seldom much formation of matter, particularly when the case is idiopathic; but if the disease has arisen from some injury, extensive supuration will take place underneath the scalp, and cause urgent symptoms to arise. Pretty considerable collections take place amongst the cellular tissue of the eyelids, but cause no further mischief than an inability to open the eyes until the matter is evacuated.

Now, all these cases require the utmost care and attention on the part of the surgeon; and I more particularly have dwelt upon this point, because I believe that these abscesses will frequently escape his notice, unless he diligently searches the patient, and looks for them: for either the patient does not suffer sufficient pain to draw his attention to the spot, or he is afraid of pointing them out, having the fear of the knife before his eyes. When there is a disposition for these abscesses to form, and the patient appears to suffer from some unknown irritation, every part of the body should be examined, and the cause of irritation will probably be discovered.

I have seen a fine young woman, who had originally been attacked with erysipelas of the leg, suffering for days under all the symptoms of a low fever, and treated for such: she was under the care of an able practitioner, who, probably, did not examine her so diligently as he ought to have done. The patient remained in an alarming state, but at last, by some means, it was found out that there was an enormous collection of matter in the upper



part of the thigh, which had caused the mischief. The evacuation of a large quantity of pus soon relieved her, but she suffered severely from this want of proper caution.

I also recollect a case which was treated for fever; it was afterwards found by a friend of mine that the patient had a large abscess near the rectum.

I shall not dwell upon the other effects of erysipelas, namely, the internal abscesses and inflammations which are so frequently seen in fatal cases; nor shall I enter upon the *post-mortem* appearances, as this would be foreign to an essay like the present, which does not pretend to embrace everything connected with this interesting disease. I cannot do better than refer such of my readers who wish to gain information on this point to the admirable treatise by Mr. Nunneley, who has collected a great mass of interesting facts connected with the disease.

There is one peculiarity with regard to the mode of attack of erysipelas I have noticed, which I have thought rather curious and worthy of mention. It is well known that, if a person having a wound or sore on any part of his body is exposed to the contagion of erysipelas, the inflammation involves the breach of surface; but I have noticed some remarkable exceptions to this rule in two or three cases. The parties have been exposed to the poison with sores or wounds on their person, and the disease has appeared on a sound part of the body; in fact (to speak chemically), the inflammation had a greater affinity for the healthy than the unhealthy part. I will mention one or two cases. A female was admitted into King's College Hospital with a large ulcer on the leg, and phlegmonous sores on the thigh. Whilst she was there, a patient labouring under erysipelas of the leg was brought into the ward; the young woman was soon taken ill; erysipelas appeared not around the breach of surface, but in the head and face.

A young man had his toe removed; three days after the operation, erysipelas attacked him in the same leg. The disease here showed itself in the calf, where a fortnight previously he had been blistered, the effects of which, however, had entirely gone off.

I have more than once observed a fact, which was first pointed out to me by Mr. Fergusson, namely, that where large ulcers on the legs, which have not shown a very quick disposition to heal, are attacked with erysipelas, they rapidly improve in their character after the attack has subsided, and get well in a much shorter time than they otherwise would have done.

It is perhaps a question which is the most dangerous form of erysipelas, that which attacks the head, or that which involves the trunk or extremities. As far as I have myself observed, erysipelas attacking the trunk or extremities has been more fatal than when the head has been attacked. There is a greater disposition to spread along the trunk and extremities than in the head; and the disease in those situations is more frequently complicated with great disorganization of the various tissues and profuse discharges of matter. On the other hand, we do not see the same disposition in the disease to spread when the head is affected; the chance of inflammation of the brain is greater certainly, but, as I have before argued, I do not think it takes place half so often as represented. I have seen a great number of cases of erysipelas of the head, of every degree of severity, and I only recollect three such cases terminating fatally, and they were all of them complicated with most severe injuries or diseases. I think, therefore, that erysipelas of the head and face must have been a much more severe disease, many years ago, when Sir Astley Cooper said, that "when it occurs on the head it generally destroys life." There can be no doubt that one epidemic may be much more fatal than another; and, from what I can learn from the writings of medical men, I should say that the disease altogether is not nearly so fatal as it used to be thirty or forty years ago.

(To be continued.)

OBITUARY.—On Saturday, the 26th ult., at Lower Garthmyl, Montgomeryshire, in the 74th year of his age, Edward Johnes, Esq., M.D.

## NECROLOGICAL NOTICE OF THE LATE FRANCIS ALVARES MACHADO DE VASCONCELLOS,

Surgeon, Deputy, and late President of the Province of San Pedro do Sul.

By RICHARD DE GUMBLETON DAUNT, Esq., M.D. (Edin.), Member of the Faculty of Physicians of Rio Janeiro, and Member of, and late Honorary Secretary to the Parisian Medical Society, &c.

Τέσσα Ἀνδραπός, ἄνθος καὶ Περμφίξ.

On the 5th of July, 1845, the Brazilian empire was deprived, by death, of one of her most illustrious citizens—one of those men, "*quorum claritatibus mundus ornatur.*" Francis Alvares Machado de Vasconcellos, who, not alone by his resplendent ability as a surgeon, but also as instancing, in his too early checked career, an example of the difference in the social position and prospects of the members of our profession in Brazil as compared with England, (a) merits a prominent place in all future professional biographies. Francis Alvares was a native of the city of San Paulo, where he was born about the year 1792, of a respectable family, one of his immediate ancestors on his father's side being a French physician, formerly resident in Santos (the chief seaport of the province, at thirty miles' distance from San Paulo), called John Baptiste Say, traditionally held to be a relative of the illustrious political economist of that name; and on the part of his mother being descended from the historical family of the Buenos, ennobled at the siege of Granada by Ferdinand and Isabella, and which, emigrating to Brazil during the union of the Portuguese and Spanish crowns, became so distinguished that, on the occasion of the delivery of Portugal from the Spanish yoke, the inhabitants of the province of San Paulo, wishing to avail themselves of the reduced state of the parent country, made the first attempt at obtaining an independent existence which history records to have been made in America, proclaiming Amator Bueno, chief of this family, as King of San Paulo. Amator Bueno, however, deceived the hopes of his friends, and, in answer, uttered *vivats* to Don John IV., and finally succeeded in causing the colonists to recognise the new Portuguese monarch: this occurred in 1641. More than a century earlier, one of his progenitors was John Ramalho, one of the earliest Portuguese adventurers, whose marriage with one of the daughters of the great Cacique of the Goyanay Indians, "Tebereza," contributed much to the subsequent establishment of Europeans in, and Christianizing of, this part of Brazil. From these *præmissa* I shall now pass to matters more personal to my deceased friend. Francis Alvares' parents were not in sufficiently affluent circumstances to be able to send their son to Europe, and in Brazil, at that time, there existed no academical institutions except theological; his educational means were very limited, and confined to the instruction afforded by the physicians and surgeons of the military hospital in San Paulo, where, at a very early age, he entered in a subordinate capacity. He was not long in the service of the Government before his abilities became manifest as a dexterous operator, and he showed himself possessed of that calm confidence and manual firmness and delicacy which afterwards rendered him celebrated. At the age of eighteen he was in charge of a small Government hospital in Santos, and a sailor on board an English vessel, then in port, having received a severe fracture of the skull, for which trepanning was decided to be necessary, the only practitioner who would undertake to perform the operation was Francis Alvares. His patient recovered; and the captain of the vessel, in gratitude, offered to take him to England, and afford him the means of studying surgery in the London hospitals. He did not, however, avail himself of this offer.

(a) I say England only, because I believe that in my own country (Ireland) the social status of the physician and surgeon is much more elevated, and their influence as citizens is greater.

To serve in a subordinate public capacity was not in harmony with a disposition like his, and accordingly he soon tried to establish himself as a private practitioner, first in Ytu, and then in Porto Felice, where he laid the foundation of his fame as an operator, and became known as a political character, being obliged by the despotic Government of the day to remain some time in Rio de Janeiro, to be more under the surveillance of the police. From Porto Felice he removed to Campinas, which for the last eighteen years was his domicile when his public engagements permitted him to be with his family and friends. His claims to distinction, as will be perceived from the above, rest on his surgical eminence and his political talents, and it is, indeed, doubtful whether he shone most as a surgeon or as a political chief. His anatomical studies must have been very limited, as regular dissection was then but little practised in the hospitals, and the revolting custom of robbing the sepulchre of its contents was, I believe, never introduced into Brazil; yet, despite these and other disadvantages, his anatomical knowledge was as precise as was that he possessed in surgical diagnosis and pathology, and his merit will appear still greater when I relate, that as a practical oculist he has never been rivalled in Brazil, and, perhaps, on few occasions in other countries. His operations for cataract must have reached the number of two hundred, and perhaps, *exceeded it*, and yet I believe that he was unsuccessful *on but two occasions*. He twice performed the operation for artificial pupil, and with full success; the patients having in the first years of infancy become victims to atresia iridis. In other branches of operative surgery he was alike eminent, his two last operations being—one, that of puncture of the urinary bladder above the pubis (which was highly successful, the permeability of the urethra being re-established, and the wound made by the operation healing perfectly); and the other, the removal of a large tumour from the parotidian region, also a successful one. Indeed it was a most rare occurrence for the result of an operation by him to prove unfortunate. As evidence of the early difficulties with which he had to struggle, it is worthy of mention, that his first operations for cataract were made with instruments fabricated by himself. He was, at the period of the establishment of the present faculty of medicine in Rio de Janeiro, urgently requested by the Government to accept the chair of operative surgery, but refused. When recollecting that, comparatively untaught, he raised himself to such a perfection of professional ability, one may well apply to him the exclamation of Cicero in his "*Book de Orat.*,"—"Quod si indocta consuetudo tam est artifex suavitatis, quid ab ipsâ tandem arte, et doctrinâ postulari putamus?" In his treatment of internal disease, Francis Alvares showed that he possessed at least a competent tact. From the nature of his early studies, and the character of his intellect, he was not qualified to excel in medicine, being sensibly deficient in those studies which go to form a perfect physician; his sound judgment, however, and his occasional intercourse with the eminent physicians who are to be found in the capital of Brazil, during his visits there, and his absence from all servile routinism, made him a very competent medical practitioner. In politics, Francis Alvares was attached to the constitutional party, in opposition to the Portuguese or anti-colonial party; and I have pleasure in recording my most sincere conviction, that a more honest, a more consistent, a more honourable, political character can nowhere be found. He was for many years a deputy of his province in the Imperial Chamber of Deputies in Rio, and also a member of the Provincial Chamber in San Paulo; and during the last ministry of the brothers Andrade, he occupied for some the distinguished post of President (an office equal to that of lord lieutenant of an English county in former ages, when these high officers had more power than at present) of the rebelled province of San Pedro do Rio Grande do Sul, the first steps for the



pacification of which, since effected by the Count de Caxias, were taken by him; this office gives the title of excellency. His reputation as a speaker was great and deserved; he had great command of language, and could not be outdone in sarcasm. His acquaintance with political economy was very perfect; and in his accurate knowledge of the condition of the various European states, and their relations domestic and foreign, I am convinced that no European statesman could excel him. His knowledge of the French language was very good, as is the case with all public characters in Brazil. He received the crosses of several orders, and was one of the surgeons of the Imperial family. As a man, his moral and physical qualities were in accordance with his professional and political; he was of good figure and handsome, and of manners the most well-bred and *distingué*. His private character rendered him beloved by all classes, and his only failing was, that his extreme disinterestedness and want of attention to his pecuniary receipts prevented him from leaving that provision for his family which was to be expected: his benevolence was extreme, and, as too often happens to members of our profession, much abused. He left no professional papers, nor did he ever publish anything, nor can I learn that he ever proposed any new operative method. The political turmoil in which he moved may well account for this.

Towards his professional colleagues, Francis Alvares ever acted in the most delicate and urbane manner, and in justice to them I will add, that he enjoyed the too rare distinction of passing through life, scarcely save in one instance, experiencing the assaults of professional jealousy. By his slaves he was so beloved that, on one occasion of his being attacked by a severe illness, one of them caused a service to be performed in the church, as a mark of gratitude for his master's recovery, which must have cost the slave at least *ten pounds* sterling. For the last few years, repeated exacerbations of a disease of the heart, owing, doubtless, to the anxiety consequent on the political struggles in which he was involved, had reduced him to a very infirm state of health, and prepared the way for the severe attack of disease of the heart and liver, to which he succumbed in Rio de Janeiro on the 5th of July last, at the age of fifty-four. As a deputy, he was obliged to leave his home to attend to his parliamentary duties in Rio, and did so the more willingly in the hope that the warmer climate of Rio might be more favourable to his health. He repented afterwards that he had done so, and ardently desired such a brief convalescence as might enable him to return to die in his native province, which, above all Brazil, has been fruitful of great men, though less so now than formerly.

His place in society will be with difficulty filled, especially as an operator. When the news of his death reached the province, one poor man, who had been awaiting his return to undergo the operation for cataract, now despairing of ever being restored to his sight, attempted to drown himself in the river Tieté, but was prevented. When the same melancholy notice reached Campinas, the more immediate scene of his labours, and where his personal friends were most numerous, the effect was such as to be best expressed in the words of S. Ambrose, de *Obitu* Valentiniani—"Parentem publicum obisse domestico fletu doloris omnes illachrymant, sua quo omnes funera dolent." I myself enjoyed his friendship for but a brief space, during his visit here, in the interval between the last two parliamentary sessions; but this was sufficient to penetrate me with a deep feeling of reverence and admiration for his varied instruction, his great professional abilities, and political talents, and to fascinate me by his amiable and polished comportment; and, inspired by these sentiments, I now endeavour to make him known to his professional brethren in other countries, regretting only that this task should not have fallen to the lot of one able to do justice to his transcendent merits. In an European capital he would have ranked with the greatest of its

surgical celebrities; in a Brazilian provincial town the appearance of such a man was a miracle. Had he removed to Rio de Janeiro, and there devoted himself exclusively to surgery, he might have died with the wealth of an Astley Cooper.

"Sit illi terra levis."

City of Campinas, Province of San Paulo,  
Brazil, October, 1846.

## PROGRESS OF MEDICAL SCIENCE.

### France.

#### ACADEMY OF MEDICINE.

Meeting of Dec. 22; M. ROCHE in the Chair.  
ELECTION OF OFFICE-BEARERS FOR THE  
YEAR 1847:—

President—83 members being present—M. Bégin obtained 80 votes; M. Brichateau, 2; and M. Jobert, 1. M. Bégin was elected president for the ensuing year.

Vice-President—78 members present—M. Bouillaud, 62; M. Brichateau, 11; M. Londe, 1; M. Adelon, 1; M. Prus, 1. M. Bouillaud was elected vice-president.

M. Métier was elected secretary.

#### HOSPITAL NECKER.

CLINICAL MEDICINE, BY PROF. TROUSSEAU.

##### ERYSIPELAS OF NEWBORN CHILDREN.

This is one of the most dangerous maladies which can affect the newborn child, not only in hospitals but in private practice; it is almost invariably fatal, particularly during the first month of extra-uterine life. Its danger gradually decreases as the child grows older; but still, after the fourth month, about one-half of the infants affected with it sink under its symptoms. The first appearance of the malady is treacherously insignificant: the child has merely lost a little of his good humour; his sleep is slightly diminished, and he sucks rather less than before; at the same time the skin of the pubes is the seat of a small red patch, painful to pressure; the redness gradually gains in extent on the body and limbs, and is occasionally disseminated; but when, in their turn, the foot and hand become affected, they acquire a degree of swelling and redness far greater than that assumed by the eruption in any other region. The genital organs sometimes sphacelate, in consequence of the local inflammation, and in many cases acquire an emphysematous appearance. The pubes is not the only part from which the erysipelas may take its departure: it has been observed to arise from the redness which surrounds the vaccine pustule, less frequently from any accidental laceration of the skin, or from one of those divisions so common in the inguinal or other cutaneous folds. The general symptoms are interesting in many respects, and, amongst others, because their mildness almost inevitably leads the unwary to commit errors of prognosis, which in private practice are neither forgotten nor forgiven. At first the disease appears perfectly local; it is not until several days have elapsed that general uneasiness and crossness show themselves. The colour of the skin, the expression of the countenance, often remain for some days perfectly satisfactory, when suddenly an ashy cadaverous paleness is observed, and with that degree of intensity that the child seems to be sinking under copious hemorrhage. The cry becomes incessant, jactitation continual, and loss of sleep absolute. These signs are followed by deep stupor and death; the pulse is at first frequent, and the heat of the skin ceases only during the terminal and fatal stupor. Convulsions, diarrhoea, and vomiting are very seldom met with. When the progress is such as we have described, peritonitis has occurred—a frequent disease in children, and one which has not been hitherto described. (a) The duration of the disease

(a) We read in Rob. Thomas's "Modern Practice of Physic, art. "Infantile Erysipelas," dissections of such children as have been destroyed by this disease have frequently discovered the contents of the abdomen glued together, and their surface covered with an inflammatory exudation, exactly similar to that found in women who have died of puerperal fever.—D. M'C.

varies considerably, sometimes being frightfully short, at others, on the contrary, being prolonged so far as three weeks.

On *post-mortem* examination the cutaneous alterations are occasionally the only changes observed; but when peritonitis (a frequent complication) has been present, the umbilical vein is often found inflamed and filled with pus as far as the transversal furrow of the liver, and inflammatory secretions are found on the peritoneal surface of the abdominal viscera.

Of the probable cause of the malady we may say this much, that we observe it principally when an ill wind of puerperal fever blows over the lying-in hospitals of Paris. The children seem to have inherited from their mother a purulent diathesis, and they appear still to be within certain limits subject to the same ailments as the mother, whose constitution has so lately been theirs. The peritonitis of the children may be, therefore, as aptly termed puerperal as that of the mother, because its general cause is to be sought for in the circumstances which have accompanied the last stage of child-bearing and parturition. It is natural that the skin should be the seat of disease, because that surface has been so lately called to perform functions as new as they are important; in such children the umbilical cicatrix does not form readily, and is sometimes the occasional, the local, cause of the cutaneous disturbance. With regard to the treatment, we have tried almost every local application imaginable, and without success; ointments, lotions, blisters—even the actual cautery—without suspending the progress of the disease. Three cases only have we seen recover during the first month under the use of the ethereal solution of camphor, and of baths containing corrosive sublimate; but in how many have we not since tried the same methods without the slightest benefit!

#### LA CHARITÉ.

BY PROFESSOR VELPEAU.

A man of strong constitution was brought to the hospital for the purpose of undergoing treatment for stricture. A small calculus was found lying at the back of the constriction, and was extracted without much trouble, and without any incision being necessary. A catheter was passed into the bladder with the greatest facility; the patient was doing well, when suddenly, twenty-four hours after his admission, he complained of faintness; tremor showed itself, the joints became painful, and he expired.

This sort of accident has been occasionally met with, but does not seem to have been hitherto properly understood. This form of sudden death is the result of operations on the urethra, sometimes of the simplest nature, such as the introduction of a catheter. M. Velpeau observed, he had already met with two analogous cases. One was that of a man who, after three introductions of catheters, for the purpose of dilating a stricture, died on the third day. Dissection did not show any alteration capable of accounting for the fatal issue. The other case was that of a young man, also affected with stricture, who, after ten days' treatment, became seized with a gangrenous erysipelas of the scrotum, and died in one week. In the late Professor Bérard's ward, sudden death once occurred after dilatation of the urethra with a large bougie. No satisfactory explanation has hitherto been given of these frightful accidents, which, happening to a young surgeon in private practice, might undeservedly injure, perhaps destroy, his prospects of success.

M. Velpeau's second case does not seem to us to belong to the same class as that which has recently occurred in his wards. It is not a case of sudden death. The following is more *à propos*:—In 1838 a patient was brought to La Charité, in state of intoxication; on examination, he was found to be affected with retention of urine; the bladder rose above the umbilicus. The first efforts to introduce the catheter were unsuccessful. M. Vidal (de Cassio) determined to make one more trial before making an incision in the perineum, for the purpose of cutting open the urethra behind the stricture. To his surprise, the catheter passed without difficulty into the bladder, and an enormous quantity



of urine was removed. The patient was carried back to his bed, fainted, and expired after a few minutes. No anatomical change was found on dissection to account for death, which the surgeon attributed to a sudden removal of considerable pressure on the abdominal veins, and compared the unfortunate issue of this case to the syncope occasionally observed after parturition.

#### FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY  
PROFESSOR ANDRAL.  
HEMATOLOGY.

From numerous experiments of our own, and numberless observations of others, we may state it as a positively ascertained fact that the blood is *alkaline*. Vogel, however, asserts that it may from the presence of free lactic acid, acquire an opposite reaction; but we do not feel disposed to admit this very surprising circumstance in the living subject, although we acknowledge that it may have been met with in blood removed from a dead body. On the authority of Scherer, Vogel asserts that the blood was found to be acid in one case of purpura, in several of acute rheumatism, and of puerperal peritonitis; further observations must confirm Scherer's remark, before we can look upon it as correct.

Under the influence of disease, the blood may retain the materials of some of our secretions—urea—or the colouring matter of bile, for instance; or it may retain merely the chemical elements of which these materials are composed. The kidney removes azotised substances from the circulation; the liver, carbon and hydrogen; and the lung, carbon; hence, when the kidney, liver, or lung are incapacitated by disease from accomplishing their important functions, azote, carbon, or hydrogen will be found in greater abundance in the blood, unless another organ takes upon itself the office of secreting the superabundant substance. This is, perhaps, the reason of the frequency of fatty degeneration of the liver in cases of phthisis.

Other principles may also be detected in diseased blood, which that fluid in a healthy condition never contains; we refer to sugar, pyine, carbonate and sulphuret of ammonia. The presence of the two latter in the blood is not, however, demonstrated in a perfectly satisfactory manner. We have said that gases may be absorbed, and we know from induction, although we cannot prove by chemical analysis, that miasmata of various kinds, and the virus of several diseases, can be mixed with the circulating fluid.

#### MICROSCOPIC STUDY OF ALTERATIONS OF THE BLOOD.

In the healthy blood, the microscope permits us to detect three objects, towards which we must first direct your attention. 1. The granules. 2. The blood-discs. 3. The white or transparent globules. Indeed, we shall not only have to investigate the modifications of which these three elements are susceptible, but also various new products resulting from morbid action.

1. The granules of the blood are very much smaller than the blood-discs; their diameter does not exceed 1-500; they appear to increase in quantity in phlegmasiæ, and are merely formed of fibrin.

2. The globules were discovered in 1673, by Leuwenhoeck, and since his time they had occasioned so many absurd hypotheses that their study had been almost abandoned until the last ten years: their increase of quantity, or their diminution, cannot be recognised by microscopic research; their form varies continually, but not from disease; while submitted to observation they change their shape and return to it with the greatest facility, merely to suit the mechanical necessities of their passage through the vessels. They are frequently observed to adopt the mulberry aspect, and we were surprised, not to say annoyed, to read in a recent number of the "Archives de Médecine," that a German microscopist having looked upon this mulberry aspect as pathognomonic of cancer, the reviewer thought proper to suspend his judgment of the matter. Now, this mulberry appearance is well known, and does not in the least imply the presence of cancer—it is not even in-

compatible with health, being merely produced by the attachment of the fibrin (viz., granules), to the surface of the blood-discs during coagulation: to prove the fact, defibrinate the blood, by whipping it, &c., the globules will never take this appearance when examined with the microscope. The nuclei of the globules are not visible in man; the colour of the discs is more or less intense according to individuals; they are occasionally found to move independently of one another, and are at other times heaped up and imbricated like minute pieces of coin—a circumstance too often observed in perfect health to permit us to consider it as the result of a pathological condition of the blood. The specific weight of the blood-discs varies in the different classes of animals: in some they sink very rapidly to the bottom of the vase in which they have been received; in others, they never sink completely; the formation of the buffy coat of blood, in inflammatory maladies, can be accounted for only by the greater rapidity of the precipitation of its blood-discs, or by the slower coagulation of its fibrin. An ingenious experiment of Professor Dumas shows that, so long as the globules are in contact with oxygen, they preserve their form and scarlet colour; but, when deprived of that gas, they very soon lose their shape and natural hue, and that they are speedily destroyed. This experiment should not be lost sight of in the study of asphyxia. When water is placed in contact with the globules, these bodies absorb it, become distended, and burst; acetic acid, on the contrary, causes them to exude their contents; mineral acids coagulate their colouring matter, and render them insensible to water. Chlorine, alcohol, and alum act upon them in a manner similar to mineral acids; iodine, at first, seems to produce no change in the blood-discs, but it also renders them impenetrable to water. Alkalies, ammonia for instance, dissolve the globules instantaneously; narcotic alkaloids have no such effect upon them. The action of saline compounds is very variable: some destroy, others empty, the globule, according to their acid or alkaline nature. We have never been able to trace alteration of shape of the globules to any particular disease.

3. The white or transparent globules of the blood are larger in size than the red blood-discs. Many of them contain numerous granules, or even small nuclei; the quantity of these white globules in the blood is extremely variable, and it is not possible to establish any relation between their presence or absence, their increase or diminution, and any predetermined pathological state. These bodies, however, present a considerable degree of interest from their resemblance to pus globules, to which they have been often mistaken. In treating of pus we will point out the differences. M. Donné asserts that the transparent globules of the blood increase in number in cases of dropsy; the remark requires further confirmation.

The microscope may also detect in the blood the presence of new productions which that fluid should not contain in its physiological state; when pus, for instance, is found in the circulation, it is evident that the pus-globules must have passed through the patent orifices of blood-vessels, or that they have been formed in the blood; their size forbids the supposition that they have been conveyed there by endosmosis or by absorption. When fresh pus is mixed with blood in a vase, the blood-discs are not changed in their microscopic aspect by the addition; but when pus in a state of incipient decomposition is substituted for the experiment, the blood-globules very shortly disappear, probably on account of the formation of ammonia. We may infer that it is particularly the introduction into the vessels of that pus which has been in contact with air—as from wounds—which will prove most injurious in its tendencies to produce disease.

The cancerous cell has been met with in the blood in cases of advanced carcinomatous diathesis. In the inferior classes of animals it is not uncommon to find entozoa in the blood; in reptiles, for instance, the occurrence is frequent. Veterinary surgeons also state that they find, occasionally, hematozoa in the superior mesenteric artery of the horse. In 1843, MM. Lafont and Gruby announced that they had also found living parasites in the

circulation of a dog. The hematozoa belonged to the genus *filaria*, and their diameter was inferior to that of the blood-discs. The two anatomists above mentioned examined carefully all the other parts of the body of the animal, and found the *filaria* nowhere but in the blood; having prosecuted their experiments on 250 dogs, they met five times with *filaria* in animals who enjoyed apparent health.

We now come to the study of those physical changes which are observed in the blood. It is purposely that we have placed their study after the chemical and microscopic examination of that fluid, because the crucible and the microscope explain the physical changes in the most satisfactory manner. The blood may be altered in its colour; thus, when venous blood is not vivified by the contact of a gas fit for respiration, it passes into the arterial system with its black colour. We have not met with any alterations of odour characteristic of disease. The solitary case reported by Morton, on the authority of an unknown surgeon—case in which blood with a foetid smell escaped from the vein of a patient—cannot be admitted but with the greatest distrust. The taste of the blood will, of course, be found to vary with its chemical composition; the density varies from 1,050 to 1,057, but, according to the increase or diminution of its solid particles, great differences will be found. The viscosity of the blood depends in a great measure on the amount of albumen which it contains; it is, however, very difficult to appreciate properly the degree of viscosity, on account of the absence of any instrument, or of any fixed standard of comparison. In cholera the extreme viscosity of the blood is most remarkable. Lauder, Gaspard, and M. Magendie have instituted a series of experiments on this subject: their method of research consisted in the introduction into the blood-vessels of viscid but otherwise innocuous matter—such as oil, grease, milk, arabic gum, &c.; in all cases they found the respiration much accelerated, and a more or less rapid death from congestion of the capillaries, particularly in the lungs. This seems to have been the mechanism of death during the cold stage of cholera. In order to complete the experiment, substances reduced to an impalpable powder—charcoal, for instance—also were introduced into the circulation, but, the blood not being rendered more viscid, the results to the animals were quite unimportant.

M. Poiseville endeavoured to ascertain if, independently of the action of the heart, any other cause might be found to hasten or to retard the progress of the blood through the capillaries. Both jugular veins being opened, the experimentalist introduced into one a very small quantity of prussiate of potass, and immediately afterwards the substance which it was his object to test. From the other jugular vein the blood was received in a vessel containing a solution of the salt of iron, and the instant the fluid turned blue the substance introduced into the blood was known to have been carried round through the capillary vessels. M. Poiseville thus found that some substances are endowed with the power of quickening the circulation, such as nitrate of potass and acetate of ammonia; and that others, on the contrary, like alcohol, slacken considerably its progress. Let us also remark that the two former substances have a tendency, which we have already noticed, to liquefy the blood. The coagulability of the blood, which may be modified by the disease, is remarkably impaired by various substances: thus alkalies, soda, nitrate of potass, ammoniacal salts, carbonates of potass and soda, sulphate of soda, diminish it; and in this respect, miasmata and venomous matter exercise upon the blood an analogous action. In purpura, in scurvy, in typhus, we find coagulability decreased; and the reason must be the diminution in the average quantity of fibrin contained in the blood. This leads us naturally to the examination of the clot formed by the coagulation of the fibrin, by which a certain amount of blood-discs and serum are incarcerated. The size of the clot, of course, depends upon the quantity of fibrin and of globules in the blood, particularly upon the relative proportions in which they stand towards each other. Thus the volume of the coagulum is greatest when the fibrin remains at its healthy



standard, and when the globules are very numerous—as in plethora, for instance. The increase of the quantity of fibrin is, on the contrary, the reason of the smaller size of the clot in phlegmasiæ, the elasticity of the fibrin expelling from the coagulum a certain amount of water, which would otherwise have swelled its volume. The clot is smaller when the globules are scarce, and the fibrin natural, as in chlorosis; but it becomes smaller, again, in cases of chlorosis complicated with any phlegmasiæ, pneumonia for instance, because the fibrin increases, the globules remaining stationary. With regard to the consistency of the clot, that depends entirely upon the quantity of fibrin it contains. The buffy deposit which is observed on the surface of the blood in phlegmasiæ consists entirely of pure fibrin, and can only be formed when one of the two essential conditions is present—namely, an excessive quantity of fibrin, or a delay in its coagulation. One of these two circumstances must be present, but several accessory circumstances may facilitate the production of the inflammatory crust. These are—the escape of the blood in a continuous, broad, and rapid stream; its reception into a vase sufficiently deep; and the perfect repose of the fluid during the interval between phlebotomy and coagulation. In some animals—in the horse, for instance—this fibrinous crust is always met with on the surface of the clot, either on account of the slowness of coagulation, or of the great specific gravity of the blood-discs. In mentioning an excessive quantity of fibrin as a necessary condition of the formation of the coat, we would be understood to imply excess relatively to the globules. Thus in chlorosis, no inflammatory affection whatever being present, the great diminution experienced by the globules leaves the fibrin in excess, and may permit the formation of a white crust on the surface of the coagulum.

In the living subject the blood may coagulate spontaneously in the heart, in the veins, or in the arteries; and this may coincide with inflammatory changes in the inner lining of the vascular system, or may exist without any such morbid alteration. Dr. Bouchut has shown that this spontaneous coagulation is far from uncommon, and that it is the cause of that œdema of the lower extremities so frequently observed a short time before the fatal termination of chronic diseases.

The specific gravity of the serum varies between 1,025 and 1,027, and may diminish or increase according to the change of proportions of the solid elements of the blood. It is naturally translucent; but it may acquire, from a slight fall in the fibrin, a reddish colour, which is observed frequently in pyrexia, such as measles, scarlatina, typhus, &c. In icterus a yellow hue of the serum has been noticed, and M. Martin Solon asserts he has also met with this same modification of colour in some cases of pneumonia not complicated by jaundice. To this we shall recur. Vogel has also met with this colour in a case of apoplexy, and in another of arachnitis; but, although neither had icterus when they died, who can tell if it was not on the eve of appearing? The serum may, although it is very uncommon, take a brownish colour. A young physician, whose untimely death has been a real loss to science, M. Simon, of Berlin, detected in such cases a special brown colouring matter, which he called hemapheline, and which exists in smaller quantity in the healthy blood. The question, however, is still pending. A whitish opaque appearance of the serum is also sometimes observed, on microscopic examination, to result from the presence of globules of fatty matter in a state of suspension; ether restores to the serum its natural transparency. This state of the serum is met with when venesection has been performed shortly after a meal; but we fancy we have also seen it in cases of albuminuria, although we do not know if this aspect of the blood was here also the result of the same cause. Indeed, some other cases would lead to the conclusion that the milky colour of the serum may be ascribed to a different origin than the presence of fatty matter. Simon, of Berlin, has seen instances in which ether failed in dissolving the minute white globules in question, and in which they instantly disappeared by the addition of acetic acid; he conceives them to be

formed of little grains of coagulated fibrin. This opinion, however, should be received with much reserve, although it is in some measure shared in by Séhérer, who asserts, with Simon, that he has met with this milky appearance of the blood in pregnant women suffering from tubercular consumption, in a case of dropsy attended with vertigo, in a drunkard subject to cerebral congestion, and in a case of granular disease of the kidney. Vogel surmises that this milky colour may sometimes depend upon the precipitation of albumen, by the presence of free lactic acid; but this is a pure hypothesis which nothing tends to demonstrate. About twenty years ago M. Chevreul remarked, that in children affected with sclerema the serum becomes spontaneously changed into a mass of the consistency of jelly. It is singular that this interesting fact should have been entirely neglected, and should for so long a time have been unnoticed by observers. (M. Bouchut informs us that he has repeated M. Chévreul's researches on this point, but that gentleman's views are not confirmed by experiments.)

From the blood emanate the fluids of our secretions, and to the consideration of their alterations we now beg to direct your attention. These fluids are most variable in quantity, in quality, and in composition; you may judge how numerous must be their modifications by a glance at the circumstances which produce them. The state of the blood; the condition of the secreting organs; the state of the nervous system by which all secretions are so plainly governed; the mode of accomplishment of digestion, respiration, circulation, and their thousand changes; also the atmospheric vicissitudes, the influence of alimentation, and of drinks; and, lastly, age, sex, and constitution, are the various causes of alteration of the nature of our secretions: all secreted liquids, with one exception only, serosity, are separated from the blood by special elaborating organs. It is only in serosity, therefore, that we find some of the elements of the blood. That secretion consists in water holding in solution albumen and some saline principles; it does not, however, contain as much albumen as the serum of the blood. Serosity may be said to be generally found on surfaces which are not separated from each other by any accumulation of fluid: such are the areolæ of the cellular tissue, the peritoneum, pleuræ, &c. The function of the secretion seems to be chiefly to facilitate motion. In one instance, however, in the ventricular cavities of the brain, and in the arachnoid, the secreting surfaces are constantly, in health, separated by a fluid, which is intended to fill up the vacuum. Increase of serous liquids in the normal cavities of the body can only arise from a change in the mode of circulation of the blood, or from a change in its composition: all dropsies can be ascribed to one of these two causes.

D. M'CARTHY, D.M.P.

### Ireland.

#### SURGICAL SOCIETY OF IRELAND.

Dec. 5; Mr. CUSACK in the Chair.

##### RESULTS OF A CASE OF TRACHEOTOMY.

Mr. Orr said he had, about two years ago, laid before the society the particulars of a case in which he had performed this operation with relief of the symptoms that demanded it. He now again begged to solicit the attention of the society to the case in consequence of its having, within the last two months, terminated fatally in a manner extremely novel and interesting.

The patient, a young woman aged 25, had suffered for many months from symptoms of chronic laryngitis, without any relief from medicine. The severity of these symptoms having increased, and ulceration having, as well as could be determined by the touch, evidently encroached considerably on the epiglottis, the operation was performed on the 1st of Nov., 1844. A suspicion of disease in the lungs caused an unwillingness to operate, but, the chest symptoms being obscure, the operation was performed for the reasons before mentioned. Complete and immediate relief followed; she rapidly

regained flesh and strength. A sense of impending suffocation was always experienced by her on the removal or closing of the tube. She remained in hospital for some months, and, on two occasions, expectorated a small, hard, whitish body, of the size of a lemon-seed, but she threw them away, so so that nothing was known of their nature. After leaving the hospital she had occasional returns of the dyspnoea, owing, it seemed, to attacks of cold to which she was very liable. In April last, however, her own expression was that she never felt better in her life; and thus she continued till the 2nd of October, when, while sitting at dinner, she stopped suddenly to feed a dog, and felt a gush of blood issue from the opening in the throat. She immediately pressed a handkerchief to her neck and drove off to the hospital. The blood, of a bright red colour, was projected from the orifice of the nula with force and in jerks. The hemorrhage was restrained by means of properly-adapted compresses and bandaging, but any attempt to remove the canula was followed by increased hemorrhage; this tube was, therefore, plugged, and the compresses placed over it. The vascular excitement was now considerable, the face being flushed, pulse 120 and bounding, and there was strong pulsation communicated to the tube; but the stethoscope gave no evidence as to the source of the hemorrhage, except the negative one that no aneurismal tumour existed.

Knowing that, if the canula had opened any vessel by ulceration, its presence in the wound must prevent any hope of a successful termination to the case, it was determined to remove the tube and replace it with suitable plugging; but the canula was only withdrawn about a quarter of an inch, when such a gush of blood rushed up by its side as obliged Mr. Orr to push back the instrument, under pain of seeing the patient perish on the instant.

It need only be added, that the frequent recurrence of hemorrhage proved fatal in eighty-six hours after its first appearance.

At the dissection, which was conducted with great care, it was observed that the loose cellular tissue about the bifurcation of the trachea, and the great arteries and veins at the root of the neck, was converted into a semi-cartilaginous structure, matting all the parts together into one apparently homogeneous mass, which, being cleared away, it was found that the canula had worked its way behind the sternum and in front of the trachea, whose rings were slightly torn in some places, till it reached the arteria innominata, which it had opened by ulceration almost close to its origin from the arch of the aorta. The semi-cartilaginous structure just alluded to formed the sides of this false passage. The opening in the innominata would admit the entrance of a goose-quill, and, together with a great portion of the passage made by the canula, was occupied by a firm plug of coagulum, which commenced in the aorta, about an inch before the origin of the innominata, and appeared to extend along the arch beyond that vessel. The larynx and epiglottis had very little marks of disease; but the edge of the latter was thin, and in parts irregular, having on its laryngeal surface depressions, as if from the effects of ulceration. The upper part was of a yellowish colour, and, seemingly, more transparent than the lower. The lungs, particularly the right, were somewhat congested, with old adhesions about the apices, and contained several masses of crude tubercular matter.

This case, Mr. Orr observed, was extremely interesting, not only in what might be said to be its unique termination, but also from the important practical deductions to be drawn from it, as well as the physiological speculations to which it may give rise.

First. As regards the actual condition of the larynx at the time of the operation. Many other affections simulate chronic laryngitis, foremost amongst which, perhaps, are tumours pressing on the tube, and hysteria: the first of which affections was proved by the autopsy not to have existed; the second might produce many of the symptoms that were present, and, in confirmation of this opinion, the comparatively normal state of the larynx might be



pointed to. That hysterica may have assisted in aggravating the symptoms was possible, but he could not admit it to be the sole agent in their production: for, in the first place, the disease commenced after repeated attacks of bronchitis; secondly, the restoration of the uterine secretion, at first scanty, was not followed by the least amendment; thirdly, there was tenderness on pressure over the larynx—a point laid down in Mr. Ryland's work as diagnostic between hysteria and chronic laryngitis; lastly, many experienced surgeons, who examined the epiglottis carefully at different periods, did not express a doubt as to the gradual encroachment of ulceration. The possibility of the restoration of this organ, after partial destruction, would be denied by many; but we know it to be capable of increased growth, as shown by a specimen in the Park-street Museum, which measures two inches in length, and to which the terms "leaf-like expansion of the epiglottis" has been applied by Dr. Stokes. If capable of increased growth, then why may it not also be capable of reproduction? Nor did he think the *ipse dixit* of any author, however accurate, should outweigh actual observation.

If the tubercles existed in the lung previous to the operation, it is a fact of great practical importance in weighing the propriety of an operation. Of their previous existence there is every reason to believe, such having been strongly suspected at first, and the operation in consequence deferred to the last for fear of hastening their progress; besides, since the operation, there were never any more symptoms of pulmonary disease than had been previously observed. Thus, if there be a chance of tubercles, in an early stage, not being hastened to suppuration by tracheotomy, it might extend hopes of relief where the hand is now withheld through fear of the consequences.

Again, the case is strongly impressive of the necessity of watching cases in which a tube is required to be worn, in order to guard against a termination so unhappy.

It is plain that, from the moment a false passage begins to be formed, the use of the canula becomes unnecessary, as no air can pass through it; here the false passage had evidently been the work of some months. A straight tube would probably have prevented the fatal result, and it would be well to remember this in cases where the tube is to be worn by a patient removed from the surgeon's eyes.

In the discussion, the principal features of the case were alluded to by some of the gentlemen who had seen the patient when living; and the fact of the epiglottis having been originally diseased was insisted on, notwithstanding its present apparently normal condition.

The Chairman felt much diffidence in offering any observations on the case, from having had no opportunity of seeing it during life; but he considered it fraught with interest from beginning to end. He did not doubt but that physical examination gave evidence of sufficient disease, in conjunction with the signs and symptoms of obstructed respiration, fully to justify the performance of the operation; but he would venture to suggest the probability of the laryngeal disease having originally been of that species so constantly attendant on tubercular lungs. Suppose, then, œdema of the larynx and epiglottis to have existed here, it would, no doubt, have conveyed that crispy feel so deceptive in a large majority of cases. He was quite of opinion that a generally œdematous condition of the larynx would render the operation necessary, and, if he were right in his conjecture, it would appear that the operation had been the means of completely curing the laryngeal affection, from the state of perfect quietude in which the organ was thereby placed. This view of the case would account for the total absence of disease on dissection.

Professor Benson made some lengthened remarks on the case; a contemplation of all the circumstances of which, he said, led him to propose a more general adoption of the operation in question. As a means of prolonging life, for instance, in many cases of combined pulmonary and laryngeal phthisis, it would be worthy of consideration. The laryngeal affection in these instances is usually much the more distressing one, and great

relief would be so far afforded. Then the results of the foregoing case go to prove that the progress of the disease in the lungs would not at all be hastened by it.

*Tube for Examining the Urethra.*—Dr. R. T. Mathy exhibited to the society a tube and reflector, constructed by Mr. Avery, of London, for examining the urethral cancer. The reflector is a concavo-convex circular tin plate, of about four or five inches diameter, having in its centre an orifice, through which the surgeon (placed at the convex side of the reflector) looks into the tube as it lies in the urethra. The tube has a funnel-shaped commencement, which receives a strong light from the reflector and transmits it along the tube, enabling the operator to ascertain the precise condition of a stricture.

*Partial Dislocation of the Inferior Maxilla.*—Mr. Lestrangle exhibited casts of the superior and inferior maxilla of a gentleman, in whom partial dislocation of the lower jaw had occurred from a long-continued habit of biting straws. The gentleman was under the impression that the depravity arose from inequality in his teeth, and came to Mr. Lestrangle for the purpose of having some of them removed. Reduction was readily effected by means of a tablespoon introduced into the mouth, with which a gradual and sufficient amount of pressure was made.

### TO CORRESPONDENTS.

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Gentlemen whose subscriptions have expired this week will oblige us by forwarding to the Publisher their subscriptions for 1847.

The Memorial of the College of Physicians shall appear, with some comments, in our next number. We are obliged to adjourn the publication of "The Great Longman case" till our next.

A Subscriber complains that the Apothecaries' Company encourage chemists to prescribe, and that these druggists are permitted by the registrar of the parish to sign certificates of death. We cannot credit the former part of his statement; but it is by no means improbable that the latter may be correct, as registrars are often very curious animals.

Dr. Wright's course of clinical lectures will be resumed next week.

The official abstracts of the proceedings of the Medico-Chirurgical and Pathological Societies shall appear in an early number.

Mr. Browne's communication will be published in an early number.

We have received Mr. Brooke's case of fracture, which will be inserted in an early number of the Medical Times. Press of matter prevents its immediate insertion.

Zeta.—The purchaser of a practice becomes its actual possessor so soon as the practice is sold and the purchase-money paid. He will therefore be at once entitled to the whole proceeds of the practice, provided no special agreement to the contrary be entered into by the parties.

We hear that Mr. Waite, the eminent dentist, has also made some experiments in the Borough, with the vapour of ether, with a view to render operations on the teeth painless. From the successful

result of these trials, he has expressed his intention of resorting to the use of this vapour in more important cases.

A Constant Reader.—There is considerable legal doubt and difficulty in the evasions he mentions. We are of opinion that the Apothecaries' Company would prefer the prosecution of unlicensed practitioners to those of members of the College of Surgeons. We would recommend him to become a licentiate of the Apothecaries' Company, if practicable; and he will not be placed in a worse position by joining the National Institute.

Mr. Haymer.—Neither the holder of a foreign diploma, nor a fellow or associate of the College of Physicians of Edinburgh, is legally capable of acting as an apothecary in England; and he is undoubtedly amenable to a prosecution, if any one thinks it worth the trouble and expense to institute it.

### THE MEDICAL TIMES FOR 1847

Will contain the following Courses of Lectures:—

1. A Short Course of Lectures on some important Points of Surgery, by W. Fergusson, Esq., F.R.S.E., Professor of Surgery to King's College, and Surgeon to King's College Hospital.

2. A Course of Surgery, by S. Cooper, Esq., F.R.S., Professor of Surgery to University College, and the President of the College of Surgeons, &c.

3. A Course of Lectures, Clinical and General, by Dr. Corrigan, of Dublin.

The Lectures of Dr. Wright, Dumas, and Sir Benjamin Brodie will also be continued.

Other Courses of Lectures and Papers are also in preparation, and will be speedily announced.

## THE MEDICAL TIMES.

SATURDAY, JANUARY 2, 1847.

### OUR NEW YEAR'S GIFT.

EIGHTEEN HUNDRED AND FORTY-SIX has quietly passed away, to be numbered amongst the *has beens*; and its successor in the legitimate line of chronology, EIGHTEEN HUNDRED AND FORTY-SEVEN, in the second day of its existence, smiles upon our editorial article as blandly as we could wish. We greet our new acquaintance on the road of time, as we would any other friend with whom an intimacy is half made at the very moment of introduction; and, if our intercourse with its immediate progenitor is a matter to judge by, we venture the belief that ere we get to this very same side old Sol again, the period intervening will neither have been wanting in profit nor pleasure. We are now speaking editorially, and, as the *retrospective* is a somewhat valid means of pronouncing upon the *prospective*, we, perhaps, cannot do better at this moment than glance at what we have effected in the twelve months that are gone, in order to anticipate what we may be likely to effect in the twelve months to come. In doing this, which is nothing more than rendering common justice to ourselves, we are at the same time putting our readers in possession of a clue whereby to obtain a pretty clear knowledge of what we are, and of what we have done, and intend to do, in the service of the profession. We call this "Our New Year's Gift"—we offer it right willingly to the many, who, we feel assured, will be glad to have it at our hands.

It is with considerable pride and pleasure—were it otherwise we should not hesitate to say so—that we look through the scientific part of



the *Medical Times* for the last twelve months. We learn, therefore, that we have been amongst the busiest, and we hope the best, of the chroniclers who have dealt with, and delivered over to the profession, standard truths for its service. In recounting these things, we do it the more willingly, from a conviction that no other journal, English or Foreign, has in the same space of time, and upon the same terms, furnished anything in volume or in value like the information we have given.

Of original lectures we have had a continuation, and an ample one too, of Pinel, "On the Structure and Functions of the Brain." These have been most ably translated by Dr. Costello, and enriched, also, by valuable notes and observations, the result of his own extensive experience on this important topic. The complete series will be found one of the richest contributions to this department of physiology and pathology in any language.

Twenty-four of a complete course of lectures on "Diseases of the Skin," by Mr. Startin, have been placed upon our pages; and it is but justice to their able author to state that he has rendered good service to the profession by his original classification and judicious views, pathological and remedial, of these troublesome affections.

The valuable reports on "Diseases of Females," by Dr. Rigby, have been extensively continued in our columns; additionally to which we have had the opportunity of presenting, from the same distinguished source, an elaborate course of lectures on "Practical Midwifery." To say that these have fully sustained the high reputation of their author is to give them no scanty praise, and yet not more than they merit.

Mr. Guthrie's admirable discourses on some of the more important departments of Surgery, at the Royal Westminster Ophthalmic Hospital, we have done our readers the service to give in full detail; and we feel certain that nothing we have given would receive a more cordial welcome from the best class of the profession.

A series of able lectures by Leroy D'Etiolles, on "Stricture of the Urethra, and its Treatment," excellently translated by Mr. Foote, we have also issued; and from the distinguished Civiale we have furnished some most valuable "Clinical Lectures on Diseases of the Bladder," skilfully translated by Mr. Brett.

From Dr. Corrigan, of Dublin, we have had a collection of clinical discourses on some important forms of disease; these have been as fertile in the opportunities of practical illustration, as they have been judicious in pathological discrimination, and in the display of rational treatment.

The complete course of "Lectures on Hernia," by Professor South, which we have given, cannot fail to prove most acceptable to our many readers, not only for the completeness of their literature, but for their scientific precision and practical good sense.

The "Lectures on Organic Chemistry," by Dumas, which are still being continued, are well worthy his distinguished name, and furnish abundant proof, were such necessary, how

careful we are, on all subjects, to provide the best materials from the best men.

Finally, to have done with lectures: the conclusion of the year has brought us the commencement of a Clinical Series, from a source equally erudite and sparkling. If our readers have perused them with the pleasure and interest with which we have dwelt on them ourselves, we shall consider that we are privileged to give to the world one of the most attractive, as well as valuable, courses of lectures which have recently made the acquaintance of periodical literature.

The Weekly Report from our Correspondent in France has constantly abounded with the choicest scientific information the Continent has had to bestow. All the most recent and valuable discoveries, and the application of them to the purposes of medicine and surgery, have found an immediate place in our columns, which have constituted the sole source of weekly information, from abroad, for the practitioner at home. It is not necessary that we should enlarge upon the value and novelty of this department of the *Medical Times*. Its efficacy and usefulness are sufficiently attested in the good opinion of our numerous readers, whose especial interest we shall not be remiss in continuing to provide for, in this branch as in others of our journalism.

Of Hospital Reports we have had a most ample supply—more, by far, than has been contained in all the rest of the English Weekly Medical Journals put together. It was a knowledge of the great value of these things, to the practitioner and the student, that induced us to offer three handsome prizes, of different value, for the best series of Hospital Reports. That we were not wrong in our design, nor the adjudicators in their decision, is sufficiently attested in the character of the contributions which have graced our paper—respectively—by Mr. Fletcher of the Manchester Royal Infirmary, Mr. I'Anson and Mr. Anderson, of St. George's Hospital. They have done excellent credit to their several authors, who cannot fail to derive much practical benefit from the discipline they thus underwent, as observers, narrators, and commentators on disease; and who must take, thus early, a good professional *status* for the evidence they have given of professional skill. We have already announced our intention of repeating these prizes during the present year; and we earnestly invite the attention of hospital students to the fact, believing, as we do, that a careful report of cases, and deliberative opinion upon them, are of the first consequence in making a scientific and a successful practitioner.

Of other Hospital Reports which have abounded in our pages it is not necessary that we should speak. Their practical import and application have been sufficiently attested in their naked evidence.

Of Original Contributions we have had a stock so numerous as to leave us no space to consider them in detail. Whilst, however, we offer our best thanks to our many valued correspondents for their obliging services, we cannot help particularizing the following serial

articles, as eminently deserving our especial notice on the score of merit.

Prize Essay on Purulent Absorption, illustrated by Cases and Experiments, by Dr. Rayner; On Ovariectomy, and on the Therapeutic Properties of Ox-gall, by Dr. Clay; Notices of Brazilian Medical Journalism and Practice, Clinical Notes, and on Ethnological Science in its Relations to Medicine and Physiology, by Dr. De Gumbleton Daunt; On the Power of the Mind over the Body, by Mr. Braid; On the Cerebral Circulation and its Relations to Disease of the Brain, and Treatment thereof, by Mr. Fletcher; Practical Remarks on Local and General Treatment by Iodine, by M. Lugol, translated by Mr. Markwick; Remarks on some Points connected with Diabetes, by M. Bouchardat, translated by Mr. Markwick; Reflections and Observations on Insanity, by Dr. Williams.

Of the Meetings of Learned Societies we have regularly given the fullest account. The Royal Medical and Chirurgical Society of London; the Pathological, the Ethnological, the Statistical, the Microscopical, the Westminster Medical, the Dublin Pathological, and Surgical, with some others, have regularly had the results of their proceedings transferred to our pages. In the majority of instances these have possessed considerable value, as being a condensation of leading opinions on some of the most important branches of medicine and surgery.

Medical News, though a comparatively inconsiderable subject, has not been a neglected one, for we have weekly given whatever professional gossip would be likely to interest our readers.

In our Leader department we have used our best efforts to sustain the character of independent journalism. At the risk of sometimes being charged with *personality*, we have fearlessly contended for *principle*. In these things an absoluteness and daring of expression are often called for, to keep our sentiments from the curse of mawkishness. That ours have never had this character, even our bitterest enemies are constrained to say; *that they never shall have it*, whilst we love the profession, and rejoice in its support, is the honest intention of our heart! We shall continue to fight the great battle of the profession's privileges, as we have hitherto fought it, without regard to bribery on the one side, or huffing on the other. We will neither be bought nor browbeaten into a neglect of first principles, and of the dearest and most sacred objects of the profession. With *the numbers* on our side—those *for whom* we labour, and *with whom* we shall gladly share the fate, be it good or evil, awaiting us—with *these*, we say, we will continue the contest for our rights and liberties, and hail the advent of the decision that shall adjudge them. The insignificant few—the puppets in high places—whose nominal distinctions it is our glory to laugh at, may despise the general practitioner, but we will fight his battle notwithstanding, and the harder for it. Envious compeers, heated out of all rivalry, may threaten with actions, injunctions, informations, and what they like—we can afford to smile at their impotence, and pardon their presumption. *They, too*, may fire a secret



shot at the profession they have deserted, and by which they are despised, if they like, but it must come through us; and, they may rely upon it, we can return the broadside with full interest.

To the great principles which we have hitherto observed, as well in the science as in the politics of our profession, we shall continue firm. In nothing shall we deviate from them, except to make ourselves further useful to our brethren. At all times their interests will be zealously watched over by us, with our best attention—at all times shall those interests command our unyielding and best advocacy!

In promising these things to our friends and patrons for the time to come, we beg leave to wish them, in all sincerity, A HAPPY NEW YEAR!

#### REGISTRATION WITHOUT REFORM.

IF a man really want an absurd idea, he has only to turn his attention to a Registration Bill as *the* professional measure of Reform. A more absurd scheme—more out of time, place, and need—could scarcely come before us. It is a “lame and impotent” something which has neither commencement, middle, nor conclusion. It creates nothing—save an appointment or two: remodels nothing, not even one out of our twenty licensing bodies: its organization is one of confusion, its enactment one of chaos. It is a mere legalization of evil on *pessimist* principles! *One* praise is asked for it—begged, rather—and it is sufficiently worth a moment's smile to be noted. This great Act of Parliament will positively enable a patient to distinguish a legitimate practitioner from a quack! Now that—charitably supposing it true—is something very—very well worth a profession's quarter of a century's agitation! Brodie, and Perry and Co., will be no longer mistaken for each other! Aston Key, and Curtis and Co., are for the future not to be put down in the same run of practice! The *poor* man—not a *poor* man either, for his mistakes are of no consequence—the *rich* man, wanting Guthrie, will by no chance walk into Dr. Eady's. Is not that a thing worthy to fight for? Such *horrid* blunders can, in future, be committed by no Dives of that select body who yet prefer a legitimate practitioner to a quack, provided always—as the act says—that the said Dives will only go to Somerset House and consult the register! How grand a reform! How consolatory! Imagine this potent bill of reform—a bill that will actually make even its author distinguishable from a quack! The omnipotence of Parliament truly! Could it be better employed? Could it be more hardly tested, or more conclusively placed beyond doubt? By all means, let us have the legitimate practitioner distinguished *by act of Parliament* from the quack; in some cases tis the only distinction practicable. Only we would suggest that a register be made on the register, so that we might have a second distinction—the distinction of the non-quackish legitimates from the quackish legitimates. Alas!—we fear it much—there would be little honour, and less profit, to have one's name on

a register to which every and any diploma—no matter what the purchase—would give peremptory right of admission! Distinction, indeed, from quacks! As well call it “distinction among them”! Imagine the illustrious name of the bill's author in the midst of advertising notoriety, flanked by long files of hydropathists, homœopathists, and the other recipients in turns of daring assaults and humble apologies, and a lusty voice crying out—“Distinction from quacks for ever!” Great distinction, certainly! We should be loath, we own, to share it.

We wish we could speak as light-heartedly of this mountebank bill's evils as we can afford to do of its advantages. Make it law to-day, and medical education is destroyed to-morrow. There is no disguising the fact, that it involves an inundation of the profession by half-educated persons. The register would establish such a nominal equality among all inscribed on its list that a young man would hardly have a motive for avoiding the institution, whether in England, Ireland, Scotland, or the Continent, which would give him a legitimate title to be registered on the easiest and cheapest terms. Is a man rejected at the Hall? Is he found unworthy of the College of Surgeons? Is he turned back from the College of Physicians? What cares he? There is a bankrupt establishment in Scotland or Germany where a diploma only awaits his purchase, and a few days sees, him under the nose of his rejecting examiners, a legitimate physician, distinguished by Parliamentary registration from the quack! With such facilities before him, what is the use of hard work to the student? Why pay largely for medical works and celebrated courses? Why even trouble the grinder? No study, one half the time, less fees, will secure him all he wants—a diploma and registration; and he snaps his fingers at the “dubs” here, the “pures” there, or the “old hags” farther off! The present system of medical education is, in all conscience, bad enough—but, undoubtedly, from the public spirit of some of the examining bodies, aided largely by local privileges, it has shown a disposition to rise. But remove those privileges, dishearten that public spirit, make the shortest—the worst—education as publicly useful, honourable, and legitimate as the best—and what follows? What but this—that the best-intentioned, in self-defence, are compelled to abate the rigour of their regulations; to make their examinations less and less a test of competency; to reject the incompetent with less frequency; and to come down to that level of easy admission which must overrun the profession with low and ill-educated practitioners.

The truth is, the registration of the profession is only the smallest part of medical reform; and, coming without that medical reform, is like a digestive pill to the wretch that is famishing, or doubly-gilt buttons to him that is without raiment. The basis of all reform is medical education. Secure that; secure that men are not quacks, and then we may have schemes, if then indeed they are even necessary, to distinguish them by act of Parliament from those that are. But a mere Registration Bill that allows any kind of education to give a man a

medical title, and that on the quickest and easiest principles possible, is in fact but a bill that makes quacks in the first place, and then declares that they are not quacks in the second. A thorough medical education, in no part of the kingdom below par, would make a Parliamentary register of very little consequence: there can be no greater protection against quackery than the existence of a first-rate body of practitioners, who will want very little assistance to keep themselves distinguishable from quacks. Depress, reduce, degrade your medical education, on the other hand, and a thousand Registration Bills will fail to give the only merit, paltry as it is, it ventures to lay claim to.

Against any Registration Bills coming alone—any of this frill-without-shirt legislation—there is no part of the medical profession not interested.

1. All persons connected with any of the present licensing bodies, who wish to uphold protracted curricula of study and severe examinations, must be against it. So also must be:—

2. All those who are opposed to any system inevitably leading to an inundation on us of half educated and half-competent practitioners.

In other words, all the respectable conflicting parties in the war of medical interests have here a common cause of resistance. Need we, then, say one word more about the merits or possible success of such a bill? If we had, that word should be its unfortunate author's name.

#### MISCELLANEOUS CORRESPONDENCE.

##### CORONER'S COURTESY!

(To the Editor of the Medical Times.)

SIR,—If not encroaching too much on your valuable space, you would oblige me by inserting in your next number the following specimen of a coroner's courtesy:—On Monday morning last, I was called to 38, Great Wild-street, to see a woman, named Shelton, supposed to be dead. Finding such to be the case, I, in the total absence of any cause for her sudden decease, wrote to the coroner, Thos. Wakley, Esq., requesting his opinion as to the propriety of an inquest being held on the body. Not having received an answer to my letter, I wrote again to the said coroner, late on Tuesday evening. Wednesday evening having arrived, without any answer as to the inquest, I sent down to the friends of the deceased to say, that, not having heard from the coroner, they had better proceed with the funeral arrangements. Judge of my surprise, on hearing that not only had the coroner been there, but that an inquest had actually been held some hours previously, and a verdict of “Natural death” returned. In the first place, I much question the propriety of such a verdict, seeing that no *proper* inquiry was instituted. The woman, it is true, had been troubled at times with asthma, but by no means of so violent a nature as likely to end fatally. On the Sunday she dined at her son's, and expressed herself how well she felt. A person who slept in the same room, left her alive and well at eight o'clock the following morning, about to partake of her breakfast; in two hours afterwards she was found dead in bed. I would ask you, Mr. Editor, was this a case for a P.M. or not? In the second place, I wish to be informed whether this M.P. of a coroner is conversant with the common courtesies due from one gentleman to another; or whether he knows in what gentlemanly behaviour consists? His code of politeness is certainly an odd one, judging from the above specimen of it; not only did he



fail to take the slightest notice of either of my letters, but, although the inquest was held not one hundred yards from where I am residing, he never had the common politeness to send me word that I was or was not wanted.

I am, Sir, your obedient servant,  
T. W. BRADLEY, M.R.C.S.  
42, Great Queen-street, Lincoln's-inn-fields.

#### UTERINE HEMORRHAGE.

[To the Editor of the Medical Times.]

SIR,—In reply to Dr. Woollam, I must confess I was not aware that his worthy preceptor, Dr. Campbell, had published anything on the subject (in respect to the employment of stimulants), either elementary or otherwise. I have not at this moment the opportunity of consulting Dr. Campbell's work, but take it for granted the statements of Dr. Woollam are correct, notwithstanding, at the same time, I feel somewhat surprised that the subject, being, as Dr. Woollam justly observes, of "*such vital importance*," we have not had (that I am aware) from his pen, or any other practitioner, an account of cases so treated, and the plan by which they were carried into operation. I do not for one moment wish to arrogate to myself the treatment which I have thus far called "*new*"; but at the same time I must take leave to say, that I had acquainted several of my talented medical friends of the mode adopted, and the result of which they had never before heard, more especially my highly valued and much esteemed teacher and friend, Dr. Blundell, formerly of Guy's Hospital; and also that highly distinguished practitioner, long known in the walks of science, Dr. Wm. Reid Clanny, of Sunderland, who, in a note addressed to me referring to the subject of uterine hemorrhage, in respect to a case in which he had been consulted, says, "*In fact, I was never more pleased at anything than at this triumph of medical science*"; he being one of the first to order alcohol to be injected in a case of miscarriage. I trust now, the subject being so far eliminated, we shall, through the medium of your talented journal, have from others the result of such treatment, and the benefits resulting therefrom.

I remain, Sir, your obedient servant,  
THOS. R. TORBOCK, M.D.  
Kirkby Stephen, Dec. 21.

#### PAINLESS SURGICAL OPERATIONS.

A subject of intense professional interest, and one which is likely to become an important adjunct to operative surgery, is now before the medical profession in England. Originating in America, and being the invention of Dr. Morton, information was immediately conveyed to England, and within six hours after the arrival of the letter announcing it, it was employed by Mr. Robinson, surgeon-dentist, of Gower-street. We allude to the performance of even the most severe operations without the consciousness of the patient. Mr. Robinson has extracted many teeth under these circumstances without the patient evincing by movement or gesture the slightest indication of pain; and the patients have afterwards expressed their full belief that the operation was yet to be performed.

Mr. Liston next employed it in the major operations—amputated a leg and performed evulsion of the toe nail, without the knowledge of the patients.

We saw Mr. Fergusson perform the operation for phymosis this morning (Thursday), and we can testify that the patient showed no sign of pain, and we have his own evidence that he was totally unconscious that the operation had been performed. Many trials will be made of the plan, which will be more fully explained by the letters we insert in the present number; and we shall take the earliest opportunity of placing all the information we pos-

sess and can collect on the subject before our readers. The great obstruction to its general adoption in the metropolis, in all severe operations, has been the difficulty of securing an apparatus which, while admitting a free respiration, allows an uninterrupted inhalation of the vapour of ether. An elegant apparatus, which obviates all these difficulties, has been constructed by Mr. Robinson, of which we give an engraving in the present number. We have received accounts of other and severe operations performed without inconvenience or pain to the patients, to which we shall refer more at large in a subsequent number. We must direct attention to the brilliant operations performed under the influence of this agent, at King's College Hospital, a record of which will be found under our heading of original contributions.

#### INSENSIBILITY DURING SURGICAL OPERATIONS PRODUCED BY INHALATION.

*Read before the Boston Society of Medical Improvement, Nov. 9, 1846, an abstract having been previously read before the American Academy of Arts and Sciences, Nov. 3, 1846.*

By HENRY JACOB BIGELOW, M.D., one of the Surgeons of the Massachusetts General Hospital.

(From the *Boston Medical and Surgical Journal*.)

It has long been an important problem in medical science to devise some method of mitigating the pain of surgical operations. An efficient agent for this purpose has at length been discovered. A patient has been rendered completely insensible during an amputation of the thigh, regaining consciousness after a short interval. Other severe operations have been performed without the knowledge of patients. So remarkable an occurrence will, it is believed, render the following details relating to the history and character of the process not uninteresting.

On the 16th of October, 1846, an operation was performed at the hospital upon a patient who had inhaled a preparation administered by Dr. Morton, a dentist of this city, with the alleged intention of producing insensibility to pain. Dr. Morton was understood to have extracted teeth under similar circumstances without the knowledge of the patient. The present operation was performed by Dr. Warren, and, though comparatively slight, involved an incision near the lower jaw of some inches in extent. During the operation the patient muttered, as in a semi-conscious state, and afterwards stated that the pain was considerable, though mitigated; in his own words, as though the skin had been scratched with a hoe. There was, probably, in this instance, some defect in the process of inhalation, for on the following day the vapour was administered to another patient with complete success. A fatty tumour, of considerable size, was removed, by Dr. Hayward, from the arm of a woman near the deltoid muscle. The operation lasted four or five minutes, during which time the patient betrayed occasional marks of uneasiness; but, upon subsequently regaining her consciousness, professed not only to have felt no pain, but to have been insensible to surrounding objects, to have known nothing of the operation, being only uneasy about a child left at home. No doubt, I think, existed in the minds of those who saw this operation, that the unconsciousness was real; nor could the imagination be accused of any share in the production of these remarkable phenomena.

I subsequently undertook a number of experiments, with the view of ascertaining the nature of this new agent, and shall briefly state them, and also give some notice of the previous knowledge which existed of the use of the substances I employed.

The first experiment was with sulphuric ether, the odour of which was readily recognised in the preparation employed by Dr. Morton. Ether inhaled in vapour is well known to produce symptoms similar to those produced by the nitrous oxide. In my own former experience the exila-

ration has been quite as great, though perhaps less pleasurable, than that of this gas, or of the Egyptian *haschish*. (a) It seemed probable that the ether might be so long inhaled as to produce excessive inebriation and insensibility; but in several experiments the exhilaration was so considerable that the subject became uncontrollable, and refused to inspire through the apparatus. Experiments were next made with the oil of wine (ethereal oil). This is well known to be an ingredient in the preparation known as Hoffman's anodyne, which also contains alcohol, and this was accordingly employed. Its effects upon the three or four subjects who tried it were singularly opposite to those of the ether alone. The patient was tranquillized, and generally lost all inclination to speak or move. Sensation was partially paralyzed, though it was remarkable that consciousness was always clear, the patient desiring to be pricked or pinched, with a view to ascertain how far sensibility was lost. A much larger proportion of oil of wine, and also chloric ether, with and without alcohol, were tried, with no better effect.

It may be interesting to know how far medical inhalation has been previously employed. Medicated inhalation has been often directed to the amelioration of various pulmonary affections, with indifferent success. Instruments called inhalers were employed long ago by Mudge, Gairdner, and Darwin; and the apparatus fitted up by Dr. Beddoes and Mr. James Watt, for respiring various gases, has given birth to some octavo volumes. More recently Sir Charles Seudamore has advocated the inhalation of iodine and conium in phthisis, and the vapour of tar has been often inhaled in the same disease. The effects of stramonium, thus administered, have been noticed by Sigmond.

The inhalation of the ethers has been recommended in various maladies, among which may be mentioned phthisis and asthma. "*On sait que la respiration de l'éther sulfurique calme souvent les accidents nerveux de certains écoups*," is from the "*Diet. des Se. Med.*"; but I find that mention of the inhalation of this agent is usually coupled with a caution against its abuse, grounded apparently upon two or three cases, quoted and requested. Of these the first is from "*Brande's Journal of Science*," where it is thus reported:—"By imprudent respiration of sulphuric ether, a gentleman was thrown into a very lethargic state, which continued from one to three hours, with occasional intermissions and great depression of spirits, the pulse being for many days so low that considerable fears were entertained for his life." Christison quotes the following from the "*Midland Med. and Surg. Journal*," to prove that nitric ether in vapour is a dangerous poison when too freely and too long inhaled:—"A druggist's maidservant was found one morning dead in bed, and death had evidently arisen from the air of her apartment having been accidentally loaded with vapour of nitric ether, from the breaking of a three-gallon jar of the spiritus æth. nitric. She was found lying on her side, with her arms folded across her chest, the countenance and posture composed, and the whole appearance like a person in a deep sleep. The stomach was red internally, and the lungs were gorged." The editor of the journal where this case is related says he is acquainted with a similar instance, where a young man was found completely insensible from breathing air loaded with sulphuric ether, remained apoplectic for some hours, and would undoubtedly have perished had he not been discovered and removed in time. Ether is now very commonly administered internally as a diffusible stimulant and antispasmodic, in a dose of one or two drachms. But here also we have the evidence of a few experiments that ether is capable of producing grave results under certain circumstances. Orfila killed a dog by confining a small quantity in the stomach by means of a ligature around the œsophagus. Jager found that half a drachm acted as a fatal poison to a crane. It was for a long time supposed to be injurious to the animal economy. The old

(a) Extract of Indian hemp.



"Edinburgh Dispensatory," republished here in 1816, explicitly states that it is to be inhaled by holding in the mouth a piece of sugar, containing a few drops, and also that regular practitioners give only a few drops for a dose; "though," it adds, "empirics have sometimes ventured upon much larger quantities, and with incredible benefit." P. 566. Nevertheless, it was known to have been taken in correspondingly large doses with impunity. The chemist Bucquet, who died of scirrhus of the colon, with inflammation of the stomach and intestines, took before his death a pint of ether daily to alleviate his excruciating pains (he also took 100 gr. opium daily); and Christison mentions an old gentleman who consumed for many years sixteen drachms every eight or ten days. Such facts probably led Merat and De Lens, in their "*Matière Médicale*," to question its grave effects when swallowed. Mentioning the case of Bucquet, they say, even of its inhalation, that it produces only "un sentiment de fraîcheur que suit bientôt une légère excitation."

This variety of evidence tends to show that the knowledge of its effects, especially those of its inhalation, was of uncertain character. Anthony Todd Thomson well sums up what I conceive to have been the state of knowledge at the time upon this subject, in his "*London Dispensatory*" of 1818. "As an antispasmodic, it relieves the paroxysm of spasmodic asthma, whether it be taken into the stomach, or its vapour only be inhaled into the lungs. Much caution, however, is required in inhaling the vapour of ether, as the imprudent inspiration of it has produced lethargic and apoplectic symptoms." In his "*Materia Medica and Therapeutics*" of 1832, however, omitting all mention of inhalation, he uses the following words:—"Like other diffusible excitants, its effects are rapidly propagated over the system, and soon dissipated. From its volatile nature, its exciting influence is probably augmented, as it produces distention of the stomach and bowels, and is thus applied to every portion of their sensitive nature. It is also probable that it is absorbed in its state of vapour, and is, therefore, directly applied to the nervous centres. It is the diffusible nature of the stimulus of ether which renders it so well adapted for causing sudden excitement, and producing immediate results. Its effects, however, so soon disappear, that the dose requires to be frequently repeated." Nothing is here said of inhalation, and we may fairly infer that the process had so fallen into disrepute, or was deemed to be attended with such danger, as to render a notice of it superfluous in a work treating, in 1832, of therapeutics.

It remains briefly to describe the process of inhalation by the new method, and to state some of its effects. A small two-necked glass globe contains the prepared vapour, together with sponges to enlarge the evaporating surface. One aperture admits the air to the interior of the globe, whence, charged with vapour, it is drawn through the second into the lungs. The inspired air thus passes through the bottle, but the expiration is diverted by a valve in the mouthpiece, and, escaping into the apartment, is thus prevented from vitiating the medicated vapour. A few of the operations in dentistry, in which the preparation has as yet been chiefly applied, have come under my observation. The remarks of the patients will convey an idea of their sensations.

A boy of sixteen, of medium stature and strength, was seated in the chair. The first few inhalations occasioned a quick cough, which afterwards subsided; at the end of eight minutes the head fell back, and the arms dropped, but, owing to some resistance in opening the mouth, the tooth could not be reached before he awoke. He again inhaled for two minutes, and slept three minutes, during which time the tooth, an inferior molar, was extracted. At the moment of extraction the features assumed an expression of pain, and the hand was raised. Upon coming to himself he said he had had a "first-rate dream—very quiet," he said, "and had dreamed of Napoleon—had not the slightest consciousness of pain; the time had seemed long"; and he left the chair, feeling no uneasiness of any kind, and evidently in a high state of admiration. The pupils were dilated during the

state of unconsciousness, and the pulse rose from 130 to 142.

A girl of sixteen immediately occupied the chair. After coughing a little, she inhaled during three minutes, and fell asleep, when a molar tooth was extracted, after which she continued to slumber tranquilly during three minutes more. At the moment when force was applied she flinched and frowned, raising her hand to her mouth, but said she had been dreaming a pleasant dream and knew nothing of the operation.

A stout boy of twelve, at the first inspiration coughed considerably, and required a good deal of encouragement to induce him to go on. At the end of three minutes from the first fair inhalation, the muscles were relaxed and the pupils dilated. During the attempt to force open the mouth he recovered his consciousness, and again inhaled during two minutes, and in the ensuing one minute two teeth were extracted, the patient seeming somewhat conscious, but upon actually awaking he declared "it was the best fun he ever saw," avowed his intention to come there again, and insisted upon having another tooth extracted upon the spot. A splinter which had been left afforded an opportunity of complying with his wish, but the pain proved to be considerable. Pulse at first 110, during sleep 96, afterwards 144; pupils dilated.

The next patient was a healthy-looking middle-aged woman, who inhaled the vapour for four minutes; in the course of the next two minutes a back tooth was extracted and the patient continued smiling in her sleep for three minutes more. Pulse 120, not affected at the moment of the operation, but smaller during sleep. Upon coming to herself, she exclaimed that "it was beautiful—she dreamed of being at home—it seemed as if she had been gone a month." These cases, which occurred successively in about an hour, at the room of Dr. Morton, are fair examples of the average results produced by the inhalation of the vapour, and will convey an idea of the feelings and expressions of many of the patients subjected to the process. Dr. Morton states that in upwards of two hundred patients, similar effects have been produced. The inhalation, after the first irritation has subsided, is easy, and produces a complete unconsciousness at the expiration of a period varying from two to five or six, sometimes eight, minutes; its duration varying from two to five minutes; during which the patient is completely insensible to the ordinary tests of pain. The pupils in the cases I have observed have been generally dilated; but, with allowance for excitement and other disturbing influences, the pulse is not affected, at least in frequency; the patient remains in a calm and tranquil slumber, and wakes with a pleasurable feeling. The manifestation of consciousness or resistance I at first attributed to the reflex function, but I have since had cause to modify this view.

It is natural to inquire whether no accidents have attended the employment of a method so wide in its application, and so striking in its results. I have been unable to learn that any serious consequences have ensued. One or two robust patients have failed to be affected. I may mention, as an early and unsuccessful case, its administration in an operation performed by Dr. Hayward, where an elderly woman was made to inhale the vapour for at least half an hour without effect. Though I was unable at the time to detect any imperfection in the process, I am inclined to believe that such existed. One woman became much excited, and required to be confined to the chair. As this occurred to the same patient twice, and in no other case as far as I have been able to learn, it was evidently owing to a peculiar susceptibility. Very young subjects are affected with nausea and vomiting, and for this reason Dr. M. has refused to administer it to children. Finally, in a few cases, the patient has continued to sleep tranquilly for eight or ten minutes, and once, after a protracted inhalation, for the period of an hour.

The following case, which occurred a few days since, will illustrate the probable character of future accidents. A young man was made to inhale the vapour, while an operation of limited extent, but somewhat protracted duration, was performed by Dr. Dix upon the tissues near the eye. After

a good deal of coughing the patient succeeded in inhaling the vapour, and fell asleep at the end of about ten minutes. During the succeeding two minutes, the first incision was made, and the patient awoke, but unconscious of pain. Desiring to be again inebriated, the tube was placed in his mouth and retained there about twenty-five minutes, the patient being apparently half-affected, but, as he subsequently stated, unconscious. Respiration was performed partly through the tube and partly with the mouth open. Thirty-five minutes had now elapsed, when I found the pulse suddenly diminishing in force, so much so, that I suggested the propriety of desisting. The pulse continued decreasing in force, and from 120 had fallen to 96. The respiration was very slow, the hands cold, and the patient insensible. Attention was now of course directed to the return of respiration and circulation. Cold affusions, as directed for poisoning with alcohol, were applied to the head, the ears were syringed, and ammonia presented to the nostrils and administered internally. For fifteen minutes the symptoms remained stationary, when it was proposed to use active exercise, as in a case of narcotism from opium. Being lifted to his feet, the patient soon made an effort to move his limbs, and the pulse became more full, but again decreased in the sitting posture, and it was only after being compelled to walk during half an hour that the patient was able to lift his head. Complete consciousness returned only at the expiration of an hour. In this case blood was flowing from the head, and rendered additional loss of blood unnecessary. Indeed the probable hemorrhage was previously relied on as salutary in its tendency.

Two recent cases serve to confirm, and one, I think, to decide, the great utility of this process. On Saturday, the 7th Nov., at the Massachusetts General Hospital, the right leg of a young girl was amputated above the knee, by Dr. Hayward, for disease of this joint. Being made to inhale the preparation, after protesting her inability to do so from the pungency of the vapour, she became insensible for about five minutes. The last circumstance she was able to recall was the adjustment of the mouthpiece of the apparatus, after which she was unconscious until she heard some remark at the time of securing the vessels—one of the last steps of the operation. Of the incision she knew nothing, and was unable to say, upon my asking her, whether or not the limb had been removed. She refused to answer several questions during the operation, and was evidently completely insensible to pain or other external influences. This operation was followed by another, consisting of the removal of a part of the lower jaw, by Dr. Warren. The patient was insensible to the pain of the first incision, though she recovered her consciousness in the course of a few minutes.

The character of the lethargic state which follows this inhalation is peculiar. The patient loses his individuality, and awakes after a certain period, either entirely unconscious of what has taken place, or retaining only a faint recollection of it. Severe pain is sometimes remembered as being of a dull character; sometimes the operation is supposed to be performed by somebody else. Certain patients whose teeth have been extracted remember the application of the extracting instruments; yet none have been conscious of any real pain.

As before remarked, the phenomena of the lethargic state are not such as to lead the observer to infer this insensibility. Almost all patients under the dentist's hands scowl or frown; some raise the hand. The patient whose leg was amputated uttered a cry when the sciatic nerve was divided. Many patients open the mouth or raise themselves in the chair upon being directed to do so. Others manifest the activity of certain intellectual faculties. An Irishman objected to the pain that he had been promised an exemption from it. A young man taking his seat in the chair and inhaling a short time, rejected the globe, and, taking from his pockets a pencil and card, wrote and added figures. Dr. Morton, supposing him to be affected, asked if he would now submit to the operation, to which the young man willingly assented. A tooth was accordingly extracted, and the patient soon after



recovered his senses. In none of these cases had the patients any knowledge of what had been done during their sleep.

I am as yet unable to generalize certain other symptoms to which I have directed attention. (a) The pulse has been, as far as my observation extends, unaltered in frequency, though somewhat diminished in volume, but the excitement preceding an operation has in almost every instance so accelerated the pulse that it has continued rapid for a length of time. The pupils are in a majority of cases dilated; yet they are in certain cases unaltered, as in the above case of amputation.

The duration of the insensibility is another important element in the process. When the apparatus is withdrawn at the moment of unconsciousness it continues, upon the average, two or three minutes, and the patient then recovers completely or incompletely, without subsequent ill effects. In this sudden cessation of the symptoms, the vapour in the air tubes differs in its effects from the narcotics or stimulants in the stomach, and, as far as the evidence of a few experiments of Dr. Morton goes, from the ethereal solution of opium when breathed. Lassitude, headache, and other symptoms lasted for several hours when this agent was employed.

But, if the respiration of the vapour be prolonged much beyond the first period, the symptoms are more permanent in their character. In one of the first cases, that of a young boy, the inhalation was continued during the greater part of ten minutes, and the subsequent narcotism and drowsiness lasted more than an hour. In a case alluded to before, the narcotism was complete during more than twenty minutes; the insensibility approached to coma.

Such cases resemble those before quoted from Christison and other authors, and show that the cessation of the inhalation, after it has been prolonged for a length of time, does not produce a corresponding cessation of the symptoms; while, if the inhalation is brief, the insensibility ceases in a short time. Recovery, in the latter case, is not improbably due to the complete and rapid elimination of the vapour from the lungs; the more gradual return of consciousness, in the former case, to the presence of a larger quantity of unexhaled particles. A fact mentioned by Christison bears upon this point. This author states that insensibility from the presence of a large quantity of alcohol in the stomach often gives place to a complete and sudden return of consciousness when the alcohol is removed by the stomach-pump. It is probable that the vapour of the new preparation ceases early to act upon the system, from the facility with which it is exhaled.

The process is obviously adapted to operations which are brief in their duration, whatever be their severity. Of these, the two most striking are, perhaps, amputations and the extraction of teeth. In protracted dissections, the pain of the first incision alone is of sufficient importance to induce its use; and it may hereafter prove safe to administer it for a length of time, and to produce a narcotism of an hour's duration. It is not unlikely to be applicable in cases requiring a suspension of muscular action, such as the reduction of dislocations, or of strangulated hernia; and, finally, it may be employed in the alleviation of functional pain, of muscular spasm, as in cramp and colic, and as a sedative or narcotic.

The application of the process to the performance of surgical operations is, it will be conceded, new. If it can be shown to have been occasionally resorted to before, it was only an ignorance of its universal application and immense practical utility that prevented such isolated facts from being generalized.

It is natural to inquire with whom this invention originated. Without entering into details, I learn that the patent bears the name of Dr. Charles T. Jackson, a distinguished chemist, and of Dr. Morton, a skilful dentist, of this city, as inventors,

(a) Since the above was written, I find this irregularity of symptoms mentioned in the case of poisoning by alcohol. Dr. Ogston, according to Christison, has in vain attempted to group together and to classify the states of perspiration, pulse, and pupil.

and has been issued to the latter gentleman as proprietor.

It has been considered desirable by the interested parties that the character of the agent employed by them should not be at this time announced; but it may be stated that it has been made known to those gentlemen who have had occasion to avail themselves of it.

I will add, in conclusion, a few remarks upon the actual position of this invention as regards the public.

No one will deny that he who benefits the world should receive from it an equivalent. The only question is, of what nature shall the equivalent be? Shall it be voluntarily ceded by the world, or levied upon it? For various reasons, discoveries in high science have been usually rewarded indirectly by fame, honour, position, and occasionally, in other countries, by funds appropriated for the purpose. Discoveries in medical science, whose domain approaches so nearly that of philanthropy, have been generally ranked with them; and many will assent with reluctance to the propriety of restricting by letters patent the use of an agent capable of mitigating human suffering. There are various reasons, however, which apologise for the arrangement, which I understand to have been made with regard to the application of the new agent.

First. It is capable of abuse, and can readily be applied to nefarious ends.

Second. Its action is not yet thoroughly understood, and its use should be restricted to responsible persons.

Third. One of its greatest fields is the mechanical art of dentistry, many of whose processes are by convention, secret, or protected by patent rights. It is especially with reference to this art that the patent has been secured. We understand, already, that the proprietor has ceded its use to the Massachusetts General Hospital, and that his intentions are extremely liberal with regard to the medical profession generally, and that, so soon as necessary arrangements can be made for publicity of the process, great facilities will be offered to those who are disposed to avail themselves of what now promises to be one of the important discoveries of the age.

### KING'S COLLEGE HOSPITAL.

#### PAINLESS SURGICAL OPERATIONS.

By Mr. FERGUSON.

On Thursday, Mr. Ferguson performed three operations on patients while under the influence of ether, which tested in a most satisfactory manner its power of producing a species of intoxication and loss of sensibility.

The first operation performed was a case of phymosis, which is known to be a most painful one. It was quite successful.

The second was a case of permanent and very irritable stricture, in which the catheter was passed without producing any pain. On the patient being asked by Mr. Ferguson, if he felt it, he laughed, and said "Felt what?"

The third patient upon whom the operation was performed was a female, who had a very large abscess near the anus. She did not appear to suffer any pain; when asked whether she had felt anything, she said it was "something like a leech bite."

The ether was inhaled by means of an apparatus, constructed by Mr. Robinson. Its influence on the system appeared in about two minutes in the two first patients; on the third it appeared to act in a much shorter time.

After the operations were performed, Mr. Ferguson made a few remarks, to the effect that these three cases had so far proved highly satisfactory, and that there could be now no doubt of the peculiar effect of ether. He said that these cases, which he had just operated upon, were peculiarly adapted for its use; and he would take the first opportunity of testing it in some capital operation, which would be of short duration. He, however, could not help stating that its use might not be without danger, and that much discrimination

was required as to the description of patients to whom it should be applied.

The interesting question, how far recovery is served or impeded by the painless results caused, is of course yet undecided. We shall, therefore, sedulously watch these and the other cases, now every day presenting themselves, with this view, and shall report further to our readers.

#### LETTER FROM MR. J. ROBINSON, Surgeon-Dentist to the Metropolitan Hospital.

SIR,—Having been the first in this country to employ the inhalation of ether as a means of rendering surgical operations painless, I beg to enclose you for publication the result of several cases in which I have extracted teeth with success under the above circumstances.

It was on the 17th of this month that I received from my friend Dr. Boott the first intelligence relating to this discovery, and which intelligence had been conveyed to him on that day in a private letter from America, and stated that numerous surgical operations had been performed at Boston, and, amongst others, numerous extractions of teeth, and I immediately contrived an apparatus for the purpose of testing these remarkable allegations. On the 19th, in the presence of Dr. Boott and his family, at his own residence, I operated upon a young person thrown into sleep by the inhalation, and extracted a molar tooth from her lower jaw.

The inhalation occupied a minute and a half, and the patient's recovery from sleep another minute. Dr. Boott questioned her respecting the tooth, and she expressed her great surprise at finding that it was removed. She said that all she had felt was merely a sensation of cold around the tooth—a sensation which was caused, perhaps, by the coldness of the extracting instrument.

The apparatus employed consisted of the lower part of Nooth's apparatus, with a flexible tube, to which was attached a ball and socket valve, and mouthpiece, similar to those commonly used for inhalation.

I repeated the experiment a few days after on other parties, but in several cases little or no effect was produced by the vapour; the fact was that the ball and socket valve, though impervious to water, was not so to air; moreover, as the patient was becoming insensible, and the breathing tranquil and involuntary, he had no longer the power of raising the ball. Hence the breath passed into the vessel and diluted the ether vapour, and only an incomplete insensibility ensued.

Instructed by these circumstances, I have had another apparatus made by Mr. Elphick, of Castle-street, Oxford-street. It consists of a mouthpiece, containing two valves, a perpendicular one which permits a perfectly free inhalation, but closes when expiration begins, and opens the other, a horizontal valve, with a perpendicular action at the top. By this means inspiration and expiration are both allowed with the greatest freedom. To the end of this mouthpiece is attached a pad, containing a spring well stuffed and adapted to the external contour of the mouth, also a clip for compressing the nostrils, and thus preventing the patient from drawing in the air, either through the nose or by the corners of the mouth. This apparatus I tried on Saturday last on two patients, from one of whom I removed an upper molar, from the other a deep-seated stump. My success was complete. Yesterday I again operated at my house, in Dr. Boott's presence, on Mr. Dixon, surgical instrument-maker, of Tonbridge-place, New-road.

The account he gave of his *status* during the operation is extraordinary; he described that he underwent a most remarkable dream, in the course of which all that he had done, and read, and known, and all the events of his early youth, seemed to be "compressed into a circle." He then felt as though an evil spirit was endeavouring to triumph over him, but still his confidence in his own victory was predominant. The actual removal of the tooth seemed to be coincident with the last effort of the supposed evil spirit. In half a minute the patient was conscious of the presence of those around him, and in two minutes he was fully recovered. He had been completely unconscious of the operation.



This morning, at the Metropolitan Free Hospital, in the presence of several medical men, I again operated in two cases with the same success—one a child twelve years of age, the other a young man of twenty-seven years of age. From the child I removed two teeth, from the man a large molar tooth from the upper jaw; the latter, on being questioned as to pain, replied that he knew nothing about it, as he had lost his brains. Both recovered in two minutes, and left the hospital perfectly well.

In conclusion I may remark, that I entertain the most confident hopes that, at last, a means is provided which, beyond all fear of failing, without any reference to the peculiarities of individual temperament, susceptibility, or idiosyncrasy, will be at the service of all who are obliged to undergo the operations of dental surgery. I trust, however, that no incautious or unwarrantable experiments will be tried—that, whether the patients suffer pain or not, the worth of the human body will be too thoroughly recognised by all humane and scientific men to allow them to palter for one moment with the interests or in the avenues of life. The general humanity and enlightenment of the age will thus allow a discovery to be harmless which might otherwise have been made the means of much reckless mutilation. In this case, this new application of steam will be, indeed, a wide blessing; and the steam of ether and other substances innumerable, if properly applied, may lead to results as new, whether in surgery, physiology, or psychology, as the steam of water and its application has been in the physical, domestic, and social existence of mankind.

7, Gower-street, Dec. 28.

Since writing the enclosed communication, two important facts I forgot to notice, which occurred in Dixon's case, and noticed by Dr. Boott and myself, viz.—that during the whole experiment the eyes were wide open, and never closed until he returned to consciousness.

This is valuable in one point, to those who are desirous of operating in ophthalmic surgery.

The other fact—there is a perfect flexibility of the muscles, which might be taken advantage of in cases of dislocation.

I again operated this morning with the most perfect success in the presence of my friends—Mr. Stocks, Mr. Snow, and Mr. Fenney.

J. ROBINSON.

[Copy of a letter to Mr. Robinson.]

2, Tonbridge-street, King's-cross, Dec. 29.

SIR,—I can have no hesitation in complying with your wish, by furnishing a written statement of the feelings, &c., I experienced, at your house on Sunday morning, after inhaling ether, and to your using it for publication, if you think it of sufficient interest.

On the nostrils being closed, and receiving the tube in my mouth, I found I could breathe the ether through it perfectly freely and with but little unpleasantness from the taste. My first impressions were those of warmth about the chest, and a general glow throughout the system, succeeded by a dizziness, and a comparative loss of power or strength. I noticed this in leaning backwards more reposingly on your operating chair. The sensation of giddiness now came on rapidly, and I seemed to be in a sort of whirl. The loss of consciousness of immediately surrounding objects followed; thoughts of home and its little inmates came, and from them it seemed as if some power were tearing me away.

You noticed after the experiment that others during its influence laid their arms on each side, while I folded mine across; this was induced, I think, by drawing, as I thought, closer in my embrace the objects of endearment I have just mentioned, as I have a very distinct recollection of folding my arms together as if that act were being performed. I mention it particularly, because of a seeming curious physical response to the mental impression. My thoughts now became fixed on a great struggle which seemed going on between a good and evil principle; there was nothing real or apparent to be seen, and it was rather associated

with readings and lectures which I had frequently heard on such subjects; but there was a straining of every faculty towards the supposed contest, my eyes seemed as though they would burst from my head, and, though I do not consider this sensation to have been so painful as the one which preceded it, still it was rather painful than otherwise from its intensity. How long I might have endured it I cannot say, but it lasted longer than any other, and seemed to die away. The first thing I became conscious of was something taking hold of and pulling among the teeth. This, you told me afterwards, arose from your removing the root of a tooth; at the time I knew not who was doing it, nor did I feel the slightest pain. A knowledge of where I was soon followed, just like waking from sleep, and glad enough I was to find that I had been but dreaming all the while, excepting the removal of the stump, which certainly occasioned no sorrow. I will only add, that I think the effects on the mind might be very different with another trial; but, being totally unacquainted with the powerful influence which it exerted in its early stage, fears were suggested, and, that state of mind being excited, gave to the whole rather an unpleasant feature.

I remain, Sir, yours very respectfully,

To J. Robinson, Esq.

W. DIXON.

ACCIDENT AND AMPUTATION.—On Thursday afternoon a young Irish girl, about sixteen years of age, took the cars of the Eastern Railroad at Lynn, for the purpose of proceeding to Ipswich. Upon arriving at the Wenham Depot she left the cars, supposing she had reached her place of destination, and did not discover her mistake until the train was starting, when she attempted to step on board again; but, falling, the cars passed over one of her arms, mangling it so that amputation was necessary. The operation was performed by Dr. Pierson of this city, accompanied by Dr. Fisk, who administered to the sufferer, with perfect success, the new preparation lately made known by Dr. Charles T. Jackson and Dr. Morton, dentist, of Boston, the inhalation of which produces insensibility to the pain of surgical operations. The unconsciousness of the girl continued undisturbed until near the close of the dressing, when she simply inquired what they were doing; but, with another inhalation, immediately relapsed into insensibility, and, upon coming to herself, supposed she had been dreaming.—*Salem Reg.*

P.S.—Just before going to press we have received, by the courtesy of Dr. Boott, an early copy of the *Boston Medical and Surgical Journal* for December 2. We thence learn that an empirical attempt is being made by one or more physicians to patent the new agent under the name of "an anodyne compound," and the protests of the respectable portion of the profession. We shall revert to this startling part of the subject in our next number.

(Advertisement.)

[To the Editor of the Medical Times.]

SIR,—Having noticed, in several periodicals and newspapers, reports of two operations recently performed by Mr. Liston, at the University College Hospital, upon patients under the stupifying influence of inhaled vapour of ether, in which amputation of the thigh in one case, and evulsion of the nail of the great toe in the other case, were effected without pain to the patients, I take this earliest opportunity of giving notice, through the medium of your columns, to the medical profession and to the public in general, that the process for procuring insensibility to pain by the administration of the vapour of ether to the lungs, employed by Mr. Liston, is patented for England and the colonies, and that no person can use that process, or any similar one, without infringing upon rights legally secured to others.

I am aware that doubts exist in the minds of some, as to the liberality of rendering inventions or improvements which tend to alleviate suffering subjects of patients; but I cannot see why the individual who, by skill and industry, invents or discovers the means of diminishing, or, as in this instance, annihilating human suffering, is not fully as

much entitled to compensation as he who makes an improvement in the manufacture of woollen or other fabrics: indeed, he is entitled to greater compensation, and for a stronger reason—he has conferred upon mankind a greater benefit.

With this view I have accepted from the American inventors, or their representatives, the agency of affairs connected with the English patent; and it is my intention, while I hold the trust, to adhere to such a course, that the charge of illiberality shall rest upon any persons, rather than upon the proprietors of the patent, or upon their agent.

JAMES A. DORR.

London, 18, Duke-street, St. James's, Dec. 28.

WAR-OFFICE, Dec. 29.—9th Light Dragoons: Surgeon Robert John Gordon Grant, from the 16th Light Dragoons, to be Surgeon, vice Wood, who exchanges.—16th Light Dragoons: Surgeon Arthur Wood, M.D., from the 9th Light Dragoons, to be Surgeon, vice Grant, who exchanges.—13th Foot: Assistant-Surgeon Frederick William Tupper, from the 57th Foot, to be Assistant-Surgeon, vice Prout, appointed to the Staff.—48th Foot: Staff Assistant-Surgeon James Dickson, to be Assistant-Surgeon, vice Johnston, promoted on the Staff.—66th Foot: Joseph Thomas La Presle, gent., to be Assistant-Surgeon, vice Cowper, promoted in the 56th Foot.—Hospital Staff: Assistant-Surgeon James Townsend Oswald Johnston, M.D., from the 48th Foot, to be Staff Surgeon of the Second Class; Assistant-Surgeon Alexander Adam Prout, from the 13th Foot, to be Assistant-Surgeon to the Forces.

MR. MILLS AND THE ST. PANCRAS VESTRY.—At a meeting of the above vestry, the following resolution was unanimously agreed to:—"That in the opinion of this committee the conduct of the deputy-coroner, in publishing an *ex parte* statement of the evidence given on the late inquiry into the death of Joseph Woodward, pending the said inquiry, and in which he was the presiding judge, accompanied with observations derogatory to the vestry and directors of the poor of this parish, was highly unbecoming; and that a report be drawn up by the committee, recommending the vestry to take proceedings in the Court of Queen's Bench, to ascertain the opinion of the court respecting such conduct."

#### MORTALITY TABLE.

For the Week ending Saturday, Dec. 26, 1846.

Causes of Death.	Total.	Average of	
		5 au- tums.	5 years.
ALL CAUSES .....	1268	1000	968
SPECIFIED CAUSES...	1263	992	961
Zymotic (or Epidemic, En- demic, and Contagious) Diseases .....	150	206	188
SPORADIC DISEASES.			
Dropsy, Cancer, and other Diseases of uncertain or variable Seat .....	102	104	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses .....	182	151	157
Diseases of the Lungs, and of the other Organs of Respiration ....	508	313	294
Diseases of the Heart and Blood-vessels .....	63	29	27
Diseases of the Stomach, Liver, and other organs of Digestion .....	95	70	72
Diseases of the Kidneys, &c.	13	8	7
Childbirth, Diseases of the Uterus, &c. ....	22	11	10
Rheumatism, Diseases of the Bones, Joints, &c. ...	11	6	7
Diseases of the Skin, Cellular Tissue, &c. ....	7	2	2
Old Age .....	70	66	67
Violence, Privation, Cold, and Intemperance .....	40	27	26



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## SUMMARY.

JAN. 9.

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A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

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*Medicinal treatment of diseases; rational remedies; routinism; difference between curing disease and helping to cure it; illustrations; Nature's efforts and the physician's; processes of cure not explicable generally; effects of hasty inferences; anecdote in point; digitalis in consumption; reasons of its advocates for urging it; cases in which these reasons do not apply; confirmation from pathology; iodine in bronchocle; judicious and ill-judged opinions concerning it; its assumed specific effects; failure in certain cases; its particular action a part of a general one; mercury in syphilis; results of its abuse; not a specific; influence on the salivary glands in common with many other medicines; belladonna on the iris; no universal remedies; pathology and idiosyncrasy tell us why there cannot be such things; instances of the variable action of medicines; necessity of avoiding absolutism in prescribing.*

GENTLEMEN,—Having treated the subject of clinical medicine thus far, in the generalities of diagnosis, let us say a few words, *en passant*, about treatment.

Not the least of the obligations we owe to pathology is our knowledge of the rationality of remedies. By this, I mean our being able to give something like a precise or a definite reason for administering certain medicines in certain diseases. Ailment, as I have told you, is made up of many items, which need to be observed and understood, singly and connectedly, ere a judicious opinion can be formed of it, or of the requirements for its alleviation. It was the absence of such knowledge as this which constituted the uncertainty and inaccuracy of the primitive practitioners of physic: it will be an increase of it that will make our successors more skilful than we are.

The distinguishing feature in the practice of our forefathers, which physiology and pathology have done us the service to expose, and which we trust they will do us the further service to utterly explode, was a reckless routinism. Receipts and cures were amongst the foremost terms in the vocabulary of physic; these are terms, you know, which advancing science tells us are of doubtful import, and always to be dealt with modestly. Philosophers of old said that nature was just a compound of sympathies and antipathies; and it may so happen that, as in the inorganic world, there are two great antagonisms, attraction and repulsion, so in the organic world, there is no bane that has not its corresponding antidote. Analogy is at least in favour of the notion and, as a matter of speculative inquiry, it is pretty enough, but we know little of it as a fact. If the principle, *ex uno disce omnes*, were not the

antithesis of the inductive philosophy, the great rule we have hinted at might seem to be probable at once, if one proof were sufficient. Thus, suppose a patient to be suffering from severe gastralgia, the consequence of morbid acidity in the stomach, and you administer a dose of carbonate of soda, which, neutralizing the acidity, the cause of the pain, occasions the cessation of this, you may rationally enough say that you (and the soda together) have cured the gastralgia! This would be perfectly true, and would look very much like an exemplification of the supposed law we have been speaking of, yet it would not be truly such. In this case you would in reality have done nothing more than if you had neutralized so much vinegar, or other acid, which your patient might have swallowed and suffered pain from. You would be only chemically contending against the acid as the cause of the gastralgia, not against the morbid action of which this acid was the effect. So that the term cure, in an example like this, which is perhaps as striking as any we could take, is of very limited signification, and would not marvellously redound to the skill of the physician. Suppose, however, that the cause of this frequent gastralgia was removed, that is, that the morbid function giving rise to the acidity was arrested through the agency of tonic aperient treatment, would you venture to say that you had cured the dyspepsia, with the same confidence that you had spoken of having cured the gastralgia? I think not. At any rate the cases are not at all parallel. In the one instance, the relation between the two phenomena—the acid causing pain, and the alkali neutralizing the acid—is clear enough; there is plainly an irritant whose acidity a certain chemical will subdue, and, *ceteris paribus*, this same remedy will always act in the same manner, and with the same results. But here, you observe, our chief dealing is with inorganic laws and actions, which have a sort of laboratory precision about them; but in looking to the morbid function, the vital cause of the ailment alluded to, we are looking after secrets that are only very imperfectly revealed to us. At the best, we can form but a very limited opinion of what organic action is, in its healthy state; and of what it is in the endless variety of its morbid states we are, for the most part, entirely ignorant. Some of the varieties of dyspepsia, for instance, are relieved by one kind of treatment, and some by another, and others by a third, and so on. Can we in all these blind adventures of ours, admitting that they prove successful, credit ourselves with having cured the malady? What proof have we of having done anything more than

removed certain impediments which obstructed Nature in her efforts to relieve herself? I think in most cases, if we contrast ourselves, and physic, with Nature, we shall find that we are rather her aid than her authority! A patient may get well under your hands, and it is not the least of providential favours for you to be thankful for; you may talk of recoveries in this wise, if you choose, but be careful how you talk of cures. Besides that there is something of quackery in the term, it is an expression of ignorance at the best. You cannot explain, satisfactorily, in any of the striking cases of amended health to which you may have contributed, *how much curative good you have done, and how you have done it.*

It is this silly talk of curing this, and curing that, which has led to the routinism I have spoken of, and invested medicines with certain assumed and unlikely powers. No doubt this has arisen from a want of due discrimination and judgment, and from not knowing that what appear to be consequences may be only coincidences. I may best convey my meaning by an illustration. It is related of a French student, that, hearing a fever patient in an English hospital call for a red-herring, he gave him one. The man recovered, and the student made a memorandum to the effect, that "a red-herring cures an Englishman of fever." When settled in practice, at home, he thought he would try this novel remedy upon his own countrymen. Accordingly, in the first case of fever that he had, he administered a red-herring. The patient died. He made another note to signify that, "though a red-herring cures an Englishman of fever, it kills a Frenchman." The story is absurd enough, yet not without its parallels in physic. It was the fashion formerly, not to speak of the physiological and other effects of medicines, but to call them good for this disease, or curative of that. Even in later times, this folly has not been without its examples, as the history of many a drug can prove. Some rabid experimentalist, after having seen a particular medicament produce certain good effects in a certain disease, has neither paused to inquire whether these good effects are limited to a few of the symptoms of the disease, or apply to them all, nor observed on a sufficiently large scale to justify the sweeping inference drawn, but has forthwith, and most unhesitatingly, hailed the world's attention to his cure for so and so. The history of digitalis is a fair example in point. Three times, if not oftener, has this potent drug been launched into fashion as a cure for consumption, and each time for a different reason. One man, for instance, having remarked the fre-



quency of the pulse in phthisis, considered this accelerated circulation to be the *fons et origo* of the disease. He had noted, also, the controlling influence of digitalis over the heart's action, and concluded that this was the genuine remedy in pulmonary consumption. He tried it, and finding that it lowered the phthisical pulse, perhaps fancied that it did many more extraordinary things, and vaunted it, *sans cérémonie*, as curative of consumption.

Another, observing the evening fever of some forms of phthisis, and the night sweats that followed, concluded that these were the simple pathological conditions of consumption, and that their antagonism would be the antidote of the disease. He observed, also, that the accelerated pulse and hot skin we speak of were prevented by digitalis taken discretionally, and in due time, and hence inferred, without hesitation, that digitalis was a cure for consumption.

A third, considering the cough and expectoration of consumption as the only morbid conditions requiring correction, found in digitalis an excellent remedy, and hence inferred it to be the antidote proper.

Now, to see that these several observers were wrong, and that they might have proved themselves to be so, had they investigated with more scruple, and taken a larger scope, I need only mention the following facts in reference to phthisis pulmonalis:—

1. It not unfrequently happens, in this disease, that the pulse is not above the ordinary standard. The woman Truman, a late out-patient of the hospital, was a case in proof.

2. Hectic and night sweats are often wanting, as is instanced in the case of Clays, now in the hospital, where he has been during the last three months.

3. There may be scarcely any cough or expectoration, as we had curious occasion to remark in the case of the boy Yardley, who died in the hospital about five weeks back.

I mention these cases to you as singularities that you have individually seen, for they will come with more freshness and force through the evidence of your own senses; but I could multiply their number manifold, were I to quote from the best writers on the subject, whose works abound with examples such as those I have offered you. I prefer, however, to take our own hospital practice, which is rich in cases for your own personal instruction.

Besides that, even common bedside observation might have taught the advocates of digitalis in consumption, that, for the very reasons they assigned, it could not be curative in that ailment, seeing that the symptoms which it was said to antagonize were not *constant*; modern pathology tell us that it is not in *subduing symptoms*, but in taking away the *morbid cause*, that relief is to be hoped for in pulmonary consumption: and it tells us also, that, however valuable digitalis may prove as an adjunct, it can never merit or maintain a leading position as a remedy in phthisis. Nevertheless, it is not without its value, and no doubt this would have been better estimated and acknowledged by the profession at large, had its ill-judged advocates vaunted its praises less vigorously.

The history of iodine as a remedy for bronchocele illustrates very well what credit or discredit a medicament may get, according as its claims are wisely or unwittingly put forth. When the efficacy of iodine in causing glandular absorption had been well attested, it was pronounced, and very properly, our best remedy in bronchocele. Without speculating how its absorbent effects were produced, it was sufficient for its judicious patrons to watch those effects, and report them accordingly. But this was not going far enough for the enthusiasts—I mean those whose imagination is too vivid for their judgment—and they instantly accredited to iodine the character of a *specific* in bronchocele. Now, the very fact of doing this required that the medicine must possess powers which it never had, if it were to sustain the false character that had been assigned to it. At length it began to be perceived, that only in certain cases of bronchocele was iodine serviceable, and that in others of very long standing, that had become

hard and even semi-cartilaginous, it produced no effect, though given for a long time, and in doses as large as could be borne. The enthusiasts then, finding that it really had not a *specific* action upon bronchocele, as was shown in this resisting the action of iodine, though testes and mammae wasted under its influence, concluded that it was a remedy of no value at all. Because it did not answer their ridiculous expectations, they discarded it as altogether worthless. This is how people judge and act who are encumbered with a prodigality of fancy. Now, this wholesale denunciation did much to lessen the confidence rightly due to iodine as a remedial agent, notwithstanding that the prejudice was founded in bad judgment. This was what the *indiscreet* party did for the drug; the others, however, having never imputed to it any character that it did not possess, or that was not consistent with the common operation of things, neither lost their confidence in it nor compromised their own credit in its advocacy. They regarded its influence upon the enlarged gland of bronchocele as a part of a *general action* of which it was capable; and not as indicative of any property it possessed bearing *specifically* upon any particular organ.

It was a belief in the individual efficacy of iodine which led to the *abuse*, and subsequently to the comparative *disuse*, of it. Positive and negative mischief was the issue of these things. Upon the same principle may we account for the disastrous effects of which mercury has frequently been made the author. Ages ago, when correct observation and induction were less regarded than they now are, mercury was pronounced a *specific* in syphilis. Consequent upon this came the belief that the remedy, in such disease, could never be used too largely. The evil effects of this indiscriminate and inordinate employment of mercury led to fatal results, with which you are all doubtless familiar. Some of these were so direful, and so directly chargeable upon the medicament, as to lead many to the belief that this was the sole origin of what was called the secondary form of syphilis. Mercury then fell into disrepute, and did not easily regain even a respectable position as an anti-syphilitic remedy. Rational experience subsequently struck mercury off the list of specifics: for it was found that not only would syphilis often get well without it, but that, in occasional cases, the disease was rather aggravated than relieved by it. So, you see, it could not be a *specific*! It may be objected to what I am saying—has not mercury a specific action upon the salivary glands? If it had, I am not aware what this has to do with its being an infallible remedy for any particular disease. Belladonna is, perhaps, the best instance we have of the direct action of a medicinal upon an individual organ. Yet belladonna will not cause a dilatation of the pupil, whilst the iris is being fixed by inflammatory action and its products. But allowing that mercury has, as is really the case, a very marked influence upon the salivary glands, this is not invariably exerted, for some people are not susceptible of salivation, and others are often sufficiently advantaged by mercury without it. Again, this drug acts upon other glands as well as the salivary, and it is not *singular* in affecting these, for the *materia medica* has many sialogogues in it, though they may not produce fetor of the breath. Did our time permit, I could give you many other instances in proof of the folly of believing in specific medicines, and trusting to specific treatment. This is the foundation of the *routinism* I mentioned at the commencement, as a danger to be avoided. Rational pathology tells us that there cannot be such a thing as a universal remedy, and experience proves the truth of this. Morrison's pills, brandy and salt, hydropathy, and such like, would fain tell us differently; but we know how much credit they deserve, and infer accordingly.

As your pathology informs you, that people do not more widely differ in age than in powers of constitution, in proneness to particular diseases, in idiosyncrasy, and so forth, so does it also suggest that there can never properly be such a thing as exclusiveness in prescribing. Only the other day, you know, I ordered for a female in the lower ward (I forget her name at this moment) a tonic mixture consisting of infusion of gentian with carbonate of

soda. The next day we found her much worse; she had been distressed with stomach-spasm all night, and inquired whether there were any carbonate of soda in her mixture? On being told that there was, she informed us that it invariably produced the effects mentioned. The nurse corroborated her statement, by telling us that each dose of her medicine caused her intense pain. She gave her aromatic spirit of ammonia in place of the soda, and it agreed with her perfectly well. I have a dispensary patient at this time who always suffers a salivation for two or three hours after having taken a dose of epsom salts. I have administered this in various disguised forms, but he has always discovered it by its effects upon his salivary glands. Some people, you know, cannot take the smallest dose of opium or of any of its preparations without being distracted and kept awake by it; others it sends into a profound sleep, and quickly; some it makes lively and merry, whilst in others it causes despondency and wretchedness. There is scarcely, indeed, an article in the *materia medica* whether actively or comparatively inert, that has not some history attached to it in connection with particular idiosyncrasies. These are things which should not only suggest a certain amount of observation and caution in practical therapeutics, but should also teach us that the laws of the *modus operandi* of medicines are not absolute, but that they vary with certain conditions to which living beings are liable. Thus, to take the *doses* of medicines in example, how indefinite they are rendered by individual peculiarities. I have more than once had a patient whom a teaspoonful of castor oil would purge briskly two or three times. These were not cases in which the bowels were relaxed but constipated, yet that small quantity of mild aperient sufficed. I have known others, again, who could swallow two or three ounces of the drug, and be little discommoded by it. The smallest dose of ipecacuanha will cause nausea and profuse perspiration in some people, whilst others will bear a large dose before sickness comes on, and at the same time scarcely perspire at all.

I mention these things to you, amongst many such like I could give did our time permit, that you may see the desirableness of using remedies *rationally* and not *empirically*; that you may know there is not any such thing as absoluteness in the *modus operandi* of drugs; and that, however it may be imputed to them to produce this particular effect, or to cure the other particular disease, you may know there is no constancy in these things, and that there never can be whilst physiological and pathological states are known to differ. I shall say a few more words upon this subject at our next meeting.

## DUMAS ON ORGANIC CHEMISTRY. No. VII.

### ON THE BLOOD.

(Continued from page 258.)

The *blood* forms the next subject for our consideration; and, to arrive at an exact knowledge of the nature of this liquid, we must attentively study its component parts, as found in man and the superior animals. The blood has, from the earliest times, attracted the attention of philosophers and physiologists; but it is not so very long since chemical science was brought to bear on its investigation.

Boyle was one of the first who experimented chemically on this fluid, towards the end of the seventeenth century. He proved that desiccated blood burns with the production of flame; that liquid blood is coagulated by alcohol, by nitric, sulphuric, and hydrochloric acids, and by corrosive sublimate; whilst ammonia renders it more liquid. He determined its specific gravity: moreover, he subjected it to distillation, obtaining from it carbonate of ammonia and empyreumatic oils, and further remarked the red colour of the ashes left by its complete incineration. Lastly, he endeavoured to resolve its relative proportions of serum and clot.

Towards the same period, Leeuwenhoek gave a



description of the globules of the blood. Menghini also wrote on the same subject, but went a step further, by proving the existence of iron in this fluid, and especially in the red globules. Professor Jurin published, at the commencement of the eighteenth century, some experiments on the blood, and determined, by very rigorous analysis, the densities of the serum and of the clot, as well as that of the blood in the mass; he laid down that of the serum as 1.0295, and that of the blood itself as 1.0533. Senac, in the year 1760, drew especial attention to the lenticular form of the globules of the blood, and to the central obscure point which they present. Hewson made some important observations on the blood: he remarked that various salts prevent or retard its coagulation; he noticed the flattened form of the recently drawn globules, and the property which they possess of assuming a rounded figure when mixed with water; he likewise discovered the *muriform* aspect which they acquire by putrefaction, and their capability of being piled one on the top of another like pieces of coin.

Towards the middle of the eighteenth century, many works appeared on the blood, more especially in relation to its anatomical constitution, from the pens of Muys, Mayer, Swammerdam, Eller, Butt, Weiss, Della Torre, Magni, Schmidt, and others. In 1776, Rouelle published the result of some experiments on the blood and on the fluid formed in dropsies, and he showed that their alkaline nature is principally owing to the presence of soda. In the same year, Bucquet stated that the clot, when washed in water, becomes divided into two distinct portions: the one being carried off by this liquid; the other, the fibrous or filamentous portion, remaining behind. It is, therefore, to him that we owe the first proof of the existence of fibrine in the clot. Fourcroy and Vanquelin experimented on the blood towards the end of the eighteenth century. Parmentier and Deyeux, also, in their turn, directed attention to the morbid conditions of the blood. Dr. Wells, about the same period, asserted that the colour of the blood was not owing to iron, but rather to some organized animal matter; and he drew especial attention to the action of the air in effecting a change of colour in venous blood. In later times, the chemical history of the blood has been rendered more complete by the labours of Berzélius, Marcet, Prevost, Lecanu, Andral, Gavarret, Figuier, and myself.

The blood circulates through all the arteries and veins of the animal economy; it is the seat of the principal phenomena of animal life. In the mammifera, birds, reptiles, fish, and the annelidæ, it possesses a red colour; it is of a lively red when taken from the arteries, and of a more or less brownish red when taken from the veins. In the inferior animals, it is colourless or white, as in the snail; in some animals it is blue or of a deep amethyst colour; in the *orthopteri*, it is often greenish; in the silkworm, yellowish; and of a deep brown in most of the *coleopteri*. As this fluid has undergone but little examination in the inferior animals, we shall occupy ourselves chiefly with the blood of the mammifera.

The blood of the mammifera, when taken from the veins, is a viscid liquid, of a brownish red colour, and which acquires a lively red tint on agitating it with air, or with oxygen gas; when taken from the arteries it presents this latter shade. On standing, the fluid part becomes almost colourless, and in it are found floating circular particles, flattened towards the centre, but rounded at the edges; it is to these particles that the proper colour of the blood is owing. Its specific gravity varies from 1.050 to 1.057, at the ordinary temperature, namely, from 15° to 16° C. The following are the results of some experiments performed by M. Marchand:—

Density.	Years.
1.057 man of .....	60
1.059 —	30
1.055 young man of .	25
1.054 —	24
1.055 —	18

Density.	Years.
1.052 —	15
1.052 —	12
1.049 woman pregnant	3 months.
1.046 —	7 "
1.052 woman .....	35
1.050 young girl.....	16

According to Davy, blood drawn in the morning is denser than that taken at night. The density of the blood diminishes by abstinence; it is augmented by deprivation of drinks.

Density.	Observers.
1.0530	Richardson.
1.0527	Haller.
1.0570	Berzélius.
1.0510	Davy.
1.0490	
1.0552	Scudamore.
1.0532	
1.0490	Fourcroy.
1.0560	
1.0310	Andrews.
1.0530	

Blood in the normal state is always alkaline. It has a saline, nauseous taste. Its odour is characteristic, and differs in most animals, but is invariably stronger in the male. This odour is increased in intensity by treating the blood with sulphuric acid. M. Barruel suggested that this character of the blood might be rendered available in certain cases of legal medicine, as in poisoning; it is, however, of too vague and uncertain a nature to be relied on under such circumstances. It might, perhaps, according to MM. Couerbe and Soubeyran, be used as an aid or index in such examinations.

When blood is left for some time to itself, whether it be arterial or venous, it becomes divided into two distinct portions: the *serum*, which constitutes the liquid part, and is transparent and yellowish in colour; and the *clot* or *crucor*, which forms a soft, opaque mass, of a brownish-red colour. We must here stop an instant to consider the phenomenon of coagulation in the blood; for this will form a step towards a knowledge of its constitution. In fact, we may regard the blood as a liquid holding in solution an albuminate of soda, in which the coloured globules float, and which carries a quantity of spontaneously coagulable fibrine in suspension, or in a state so nearly approaching to solution that it appears to be veritably dissolved in it (just as we find to be the case with starch in the watery solutions of that substance); lastly, the blood contains suspended particles of fatty matters. When the blood is allowed to stand, the fibrine, which in the circulating mass constitutes so delicate a network that it is capable of undergoing filtration, becomes coagulated and imprisons all the matters suspended in the blood, expressing, by the very act of its retraction, the greater portion of the liquid, which escapes through the meshes formed by it. It was for a long time believed that the fibrine formed a part of the globules of the blood; but M. Muller has proved the contrary by the most conclusive experiments.

Many substances have the property of retarding the coagulation of the blood, while some kinds of blood coagulate less rapidly than others; that of frogs, in the spring especially, presents this peculiarity. M. Muller, therefore, performed his experiment during that season in the following manner:—He dropped some frog's blood into one of those liquids which retard coagulation—as, for example, water charged with sugar or with sea-salt. After having slightly agitated it, to render the liquid of homogeneous consistence, he threw the whole upon a filter; the coloured globules, being rendered less capable of passing through the pores of the paper, remained on the filter, while a colourless solution escaped through, which after some time coagulated, forming a clot of fibrine; this, holding nothing within its grasp, floated colourless in the solution.

If, on the blood escaping from the body, it be

received into a vessel cooled to such a point as instantaneously to congeal this liquid, it may be preserved in this state for a long time; on applying heat or thawing it, however, it regains its original qualities and becomes coagulated. The coagulation of the blood is a purely physical phenomenon, which takes place without the aid of external agents; it is effected in those gases which have no intense chemical action on the blood, as well as *in vacuo*. The phenomenon of coagulation is, however, quite prevented by adding substances capable of dissolving the fibrine, as, for instance, caustic potash or soda; the carbonates of these bases, when employed in excess, have a similar effect; if the latter be used in small quantity, they retard, without preventing, this action. Many salts have the power of checking coagulation, as sulphate of soda, chloride of sodium, nitre, chloride of potassium, acetate of potash, and borax. According to M. Magendie, the nitrates of strychnine, of morphine, and of nicotine, possess this quality; whilst he asserts that chloride of sodium, chloride of potassium, sal ammoniac, chloride of barium, and sulphate of magnesia, render it more easy. Sugar incontestably retards it. The diluted organic acids retard or prevent it; mineral acids also have the same effect. The principle of this action will be explained when we come to consider the phenomena of digestion. If, instead of leaving the blood to itself, it be quickly stirred or whisked on its escape from the vein, the fibrine will be collected in shreds which may be rendered perfectly white by washing them in water; we may likewise obtain the fibrine from the common clot, by reiterated washing with water on a fine cloth.

In some cases of disease, the fibrine, instead of separating from the blood as a clot, holding in its grasp the red globules, coagulates by itself, whilst the globules, being heavier, sink to the bottom of the serum. The fibrine, which separates in this manner, has received the name of the *inflammatory cup*; I say, however, the fibrine with reservation: for, in this inflammatory condition, it is possible that it may have undergone some modification in its composition, although I have not yet been able, by analysis, to detect any difference between this and ordinary fibrine. One might, however, be authorised, *a priori*, to regard it as fibrine, for the blood of the horse, for example, always presents a cupped condition. If we admit this identity, its formation becomes easy of explanation: for then we may suppose that the coagulation does not take place until the globules have had time to precipitate themselves to the bottom of the vessel.

The formation of the *cup* may be attributed to three principal causes:—1. In certain conditions the fibrine coagulates more or less rapidly—a peculiarity dependent, without doubt, on its physical properties; 2. The serum may contain a quantity of salts capable of checking coagulation; 3. The serum may have lost its proper density, have consequently become poor in albumen, and may thus facilitate the deposit of the colouring particles.

We have hitherto been considering the nature of the blood as found without the body of the animal. Whilst it exists within the arteries and veins, its temperature bears relation to that of the animal itself. According to Davy, arterial blood is nearly one degree hotter than venous blood; the temperature of the blood in man is also about a degree and a half higher than that of the cavity of the mouth or of the rectum.

We have next to consider the chemical properties of recently-drawn blood; and these may be, to a great extent, foretold from a knowledge of the materials composing it. Let us, in the first place, examine the action of different gases upon it. These may be divided into three classes:—1. The neutral gases, which act merely in a mechanical manner upon it; 2. The acid gases; 3. Ammoniacal gas.

Now, if we operate with venous blood, we shall find that atmospheric air and oxygen cause it to assume the bright red tint which is characteristic of arterial blood; the oxygen is absorbed, and displaces a portion of those gases which the blood



always holds in solution, that is to say, carbonic acid and nitrogen. The oxide of carbon, carburated hydrogen, and deutoxide of nitrogen, give to it a violet-brown colour. Nitrogen, carbonic acid, hydrogen, and protoxide of nitrogen, cause it to assume a brownish-red aspect. With arsenuretted and sulphuretted hydrogen, it acquires a deep violet tint, which gradually passes to a greenish brown. These gases, with the exception of the two latter, probably act in a merely mechanical manner. Hydrochloric and sulphureous acids produce marked changes in the blood: the first alters it to a chestnut-brown colour, and causes its coagulation; the second communicates to it a black tint, and coagulates it in like manner. Chlorine at first gives it a blackish-brown colour; it coagulates its albumen, primarily by its own action, and secondarily by the agency of the hydrochloric acid resulting from its combination with the organic principles of the blood; gradually, however, it decolorises it, by robbing it of the iron contained in its colouring globules. Ammoniacal gas renders it more liquid, and gives to it a cherry-brown colour.

But, inasmuch as some gases act on the blood in a purely mechanical manner, we are not thence to conclude that, if respired in small quantities, they would be wholly inoffensive; oxide of carbon, in particular, acts during life on the nervous system, and may induce death when respired in the dose of only one-half per cent. It is not so, however, with hydrogen and nitrogen, which appear to act merely by preventing the contact of oxygen, and which prove hurtful only by too greatly diluting the air for respiration.

Hydro-sulphureous acid is a very poisonous gas; it is decomposed, however, by contact with the blood, at the same time giving a precipitation of sulphur. Individuals who are often compelled to respire small quantities of sulphuretted hydrogen are, in the opinion of some physicians, apt to contract the disease known as the "anæmia of miners," a malady which appears to be owing to the so common presence of this gas in the atmosphere of mines and underground workings. We all know the deleterious effect of the disengagement of sulphuretted hydrogen in certain marshes, where it is caused by the decomposition of sulphate of lime. This salt, acting on the organic matters which are found there, is converted into sulphuret of calcium, which the carbonic acid in its turn decomposes into carbonate of lime and sulphuretted hydrogen. Its appearance is almost always indicative of great danger, especially if we find the locality of its manifestation to have been overflowed with water; and that, whether we consider this gas to act by itself (which is least probable), or whether it be regarded as a mere vehicle of the organic miasmata. In the springs where it is engendered, it is found to be of a harmless nature; but its temperature, at the moment of its disengagement, is sometimes sufficiently high to prove an immediate source of combustion. Arsenuretted hydrogen acts as a poison from the arsenic which it contains; still, I believe that its deleterious properties have been somewhat exaggerated. Hydrochloric and sulphurous acids, as also chlorine (to which might likewise be added hydrobromic and hydro-iodic acids) interfere more or less materially with the functions of life by their action on the blood.

All the acids which coagulate albumen produce the same action on the blood. We should observe that, in the formation of the clot, the colouring matter itself is also coagulated by the albumen which forms a part of the globules. In like manner, those bodies which dissolve albumen, in the majority of cases, also dissolve the colouring matter—that is to say, where it has not been already separated, but is still contained within the organized globules.

If any of the alkaline bases be added to the blood they prevent its coagulation; ammonia exercises the same influence. All these bodies dissolve the colouring matter. We have already seen the phenomena which some of the salts produce in the blood: generally speaking, the me-

tallic salts throw down precipitates formed by the oxide of the salt, the albumen, and the hematin. These precipitates contain small quantities of metallic soaps, arising from the fatty matters which are dissolved in the serum by means of the soda which it contains.

One might be tempted to believe that water would exercise no influence over the blood, inasmuch as it is devoid of action on albumen or on fibrine; but its effect on the globules of the blood is remarkable. In fact, if we place some blood in contact with a considerable quantity of water, and in this state put it beneath the microscope, we shall quickly see the globules assume a spheroidal form, and become entirely altered in shape, probably by some phenomenon of endosmosis. This property is very interesting, and shows us the danger that would be incurred in introducing too great a quantity of water into the blood of an animal; for not only would it thus become liable to hemorrhages, but, most probably, the very formation of the globules, and the vital property of the blood, would become seriously deranged.

Alcohol coagulates the blood by robbing it of its water; it also abstracts from it the fatty matters, and various salts; hence, we can readily understand its action in the preservation of anatomical preparations. Creosote and tannin, in like manner, produce the coagulation of the blood.

## ORIGINAL CONTRIBUTIONS.

### EXPERIMENTS:

*Showing that the Chemical Action between the Carbon and the Hydrogen in the Food of Man and the Oxygen of the Air is not the only Source of his Bodily Heat.*

By ROBERT RIGG, F.R.S.

### THIRD NOTICE.

On that most difficult branch of animal physiology which relates to animal heat, upon which experiment has thrown so little light, it behoves us to be very guarded in making our deductions, and admitting reasoning from analogy, that fertile source of error. Baron Liebig appears to have fallen into both these errors on many occasions. On the subject of animal heat he has framed a theory, based partly upon experiments imperfectly examined, and partly upon mere analogy and assumption; and, as was shown in my former communications, has overlooked more perfect experimental information, which would have led him to conclusions the very reverse of those he has drawn.

In his work on Animal Chemistry, at page 13, he refers to experiments made upon the food of from twenty-seven to thirty soldiers, living in barracks, for a month. These experiments, from Liebig's own showing, are imperfect. Neither the quantity nor the constitution of the food consumed out of barracks is given with that accuracy which would admit them as items in an experimental inquiry; and no definite account is given of the egesta. It also appears that the constitution of the different articles of food generally was determined rather by comparison than by direct analysis of each article consumed. Yet, with all these imperfections, the evidence they furnish is regarded as correct; and he alludes to the results thus obtained when he says:—"From the accurate determination of the quantity of carbon daily taken into the system in the food, as well as of that proportion of it which passes out of the body in the feces and urine, unburned, that is in some form in which it is not combined with oxygen, it appears that an adult taking moderate exercise consumes 13.9 ounces of carbon daily. This 13.9 ounces of carbon escapes through the skin and lungs as carbonic acid."

In the application of these experiments to the source of animal heat, no statistical account is taken of the hydrogen in the food; which, according to his views upon this subject, forms water with inspired oxygen. The following observations further show the careless manner in which the Baron's theory upon this subject has been framed:—"If we reflect that one litre (about 61 cubic inches) of

oxygen gas, during its combination with hydrogen to form water, gives out on an average 6,228 degrees of heat, while the same volume of oxygen in being converted into carbonic acid only gives out 4,624 degrees of heat; if it cannot be denied, that the tenth part of the oxygen inspired by herbivorous animals, and the half of that inspired by carnivorous animals, is converted into water and not into carbonic acid; if we take into the calculation the heat thus produced, it cannot be doubted that the heat produced by the process of combustion going on in the body is fully sufficient to explain both the continual evaporation from the body and its constant high temperature." (Page 45.)

Before we proceed further with this subject, let us first inquire what the constitution of the food of animals must be, with respect to hydrogen and carbon, to meet these statements, which admit, according to Liebig, of no denial. If one-tenth part of the oxygen inspired by herbivorous animals be converted to water by combining with the hydrogen in the food, the hydrogen and carbon in the food which are converted into water and carbonic acid must be in the proportions by weight of hydrogen 1, carbon 27: that is to say, if that part of the food which forms these products contains 27 parts by weight of carbon, it must also contain one part by weight of hydrogen, independently of that hydrogen which is contained in the food in the proportions of hydrogen 1, oxygen 8.

Now, if we refer to the results of experiments which he has furnished us with, and which it is to be regretted he has not given here instead of these gratuitous assertions, we find that this hydrogen and carbon in the dry food consumed by the horse, as 1 is to 101, and by the cow as 1 is to 116, only about one-fourth of that required to meet the Baron's views. And, if we make the comparison by taking the food of cattle which subsist upon the grass in the field, we find the difference greater.

But, if the statement be in error when compared with the food of the herbivora, what must it be when compared with the food of the carnivora, to meet which, the hydrogen and carbon must bear the proportion by weight of 10 to 27? If such a state of things as this existed in the animal economy, no edible, not even the tallow candles and train oil alluded to by our author, could be found containing such a proportion of hydrogen as would be required for this purpose. This hydrogen in the soldier's food would only be about 1 to 40 of carbon, or one-fifteenth part of that required. But it may be said that the experimental results obtained by Despretz and Dulong, which we have given in the first communication, would lead to such a conclusion, and that these two philosophers made their calculations for the amount of heat evolved by the formation of carbonic acid and water according to the volume of inspired oxygen which entered into the constitution of the expired carbonic acid, and which disappeared.

It would, however, in my opinion, be decidedly preferable, in the present state of our knowledge upon this subject, to receive as facts that only which can be established by experimental results, and to reject every theory which can neither be proved by experiment nor reconciled with established chemical principles; at the same time admitting, that in the animal economy chemical actions take place, with the nature of which we are unacquainted.

Now, as the constitution of the food of the herbivorous animals does not furnish hydrogen sufficient to form water with more than "one-fourth of the one-tenth part," and that of the carnivorous not sufficient to form water with more than one-fifteenth of the "half of the oxygen inspired"; and, as there is no evidence in any experiment to sanction such an idea, we venture to deny the assertion of Baron Liebig upon this subject. I am, moreover, able to state, that experiment has furnished me with most satisfactory proof, that the combustion of the carbon and the hydrogen in the food consumed is not "fully sufficient to explain both the continued evaporation from the body and its constant temperature,"—an experiment made by myself expressly for the purpose of testing this and other parts of animal physiology.



That the combination of the oxygen of the air with a part of the carbon and hydrogen in the food consumed is a source of animal heat will not be questioned; but that this chemical action between the elements of the food and a part of the inspired oxygen is not the only source of animal heat in the lower animals has been already proved by experiments fully described; and it is the purport of this communication to prove by the same kind of evidence that this chemical action is not the only source of heat in man.

If this chemical action between the elements of the food and inspired oxygen be the only source of heat, the heat generated by this chemical action in the system of each individual must be sufficient at all times and under all circumstances for the purpose of that individual. The heat so generated must supply the wants of the feverish patient who languishes for many days, and in some instances weeks, in his bed; it must supply all the wants of the person who is prevented for many days, or even weeks, from eating any food beyond the smallest quantity; it must supply the wants of him whose daily employment keeps him constantly in a state of perspiration; and it must not be more than supplies the wants of him whose food is abundant in the extreme.

To examine every dietary and habit of man would be superfluous, because our view, if correct, must meet every condition of food and individual habit; and, if incorrect, a proper examination of any one case will prove it erroneous.

I had made frequent calculations of the amount of heat which would be generated by this chemical action in the human subject under different circumstances, assuming as nearly as I could the amount of ingesta and egesta. I had also made similar calculations upon the data afforded by the dietaries of military hospitals, which appeared to have been drawn up with great accuracy and correctness, and the result in every case appeared to me to prove the existence of another source of heat in the animal

system besides that of the carbon and the hydrogen in the food, which form, with atmospheric oxygen, carbonic acid and water.

I was anxious, however, to subject the theory in question to a more accurate test; and, in order to this, I placed under experiment a labouring man (a), in my own employment, of active habits. The experiment was conducted in the following manner, and with the following results:—

He had, previously to the experiment, lived on the usual fare of a labouring man who has a family to maintain. The experiment commenced on the 17th of June, 1846. He was then supplied with abundance of food, and directed to eat and to drink whenever he was hungry or thirsty, but not to eat or drink anything but what he received from me; and everything which he took was accurately weighed and analysed. The food was in quality nearly the same as his usual fare. His employment was laborious, principally such as building a hayrick and loading hay. One important feature in the experiment being the manifestation of animal force, his employment was not only laborious, but continued for many hours each day. In the ten working days he was employed 144 hours, including rest during meal time, making the average hours of labour from twelve and a half to thirteen each day. He was clothed during the hours of labour in cotton stockings, corduroy trousers, and cotton shirt, with a handkerchief loosely tied about his waist, and wore a light hat and strong shoes. The strictest attention was paid to every part of the experiment, which continued for twelve days, every one of which was very hot. During these twelve days he increased in weight from 9 st. 13 lb. to 10 st. 1 lb. In the following table are given the weight and the analyses of the food consumed:—

(a) Thomas Tyrrell, aged forty years; height, 5 ft. 7½ in.; weight, 9 st. 13 lb.

Food Consumed in Twelve Days.

Description of Food.	Weight in pounds.	Carbon.	Hydrogen.	Nitrogen.	Ashes.	Water.
Bread, second quality, spongy, and light-baked ..	19.000	4.963	.030	.125	.199	13.683
sp. gr. { Alcohol 82½ at 60° .. ..	1.897	.943	.160	..	..	.794
Beer, 1021.2 at 60° { Vegetable matter .. ..	6.353	2.795	.004	.077	.158	3.319
96.451 pounds { Water .. ..	88.201	..	..	..	..	88.001
Soup .. ..	20.750	.373	.015	.077	.076	20.209
Meat mixed with the soup .. ..	2.060	.242	.022	.057	.023	1.716
Barley mixed with the soup .. ..	.500	.211	.001	.004	.007	.277
Boiled salt beef, lean and fat .. ..	4.650	1.618	.193	.361	.263	2.215
Young cabbage, boiled .. ..	13.200	.340	.005	.036	.129	12.690
Tea { Dissolved part .. ..	.068	.029	.003	.004	.010	.023
{ Water .. ..	38.682	..	..	..	..	38.682
Butter .. ..	.400	.266	.028	.008	.010	.088
Sugar .. ..	.650	.276	..	..	..	.374
Cheese .. ..	.500	.197	.008	.030	.024	.241
Skim-milk .. ..	1.600	.058	.004	.048	.012	1.478
Total .. ..	198.511	12.311	.473	.827	.911	183.789

Excretions in Twelve Days.

Urine .. ..	17.07	.308	.033	.420	.682	15.627
Fæces .. ..	4.63	.610	.020	.080	.270	3.650
Solid perspired matter, according to M. Tennard's } mean proportion and my analysis .. .. }	1.44	.817	.043	.213	.019	.348
Total .. ..	23.14	1.735	.096	.713	.971	19.625
Total from first part of the table .. ..	198.511	12.311	.473	.827	.911	183.789
Difference .. ..	175.371	10.576	.377	.114	.060	164.164
+ or — .. ..	—	—	—	—	+	—

That the experiment might appear in its simplest form I have placed in the table under "Water" not only all the water which formed so considerable a part of the beer, soup, tea, &c., but also all the oxygen and hydrogen in the dry food which was present in the proportions in which these bodies form water.

Assuming that the temperature of the hot tea, soup, and boiled vegetables would, if mixed with the other cold food, make a mixture of the temperature of the body, our subject is a very simple one.

If the chemical action between the carbon and hydrogen in the food and inspired oxygen be the only source of animal heat, this 10.576 pounds of carbon and .377 of a pound of hydrogen must evolve as much heat by combustion as will convert

into vapour 164 pounds of water at the temperature of the body, keep the temperature of this man's body above the objects which surrounded it, and supply that heat which was radiated from his body.

According to Baron Liebig's corrected calculation for the combustion heat of hydrogen, this .377 of a pound of hydrogen would evolve as much heat as 1.504 pounds of carbon, making the combustion heat of all the carbon and hydrogen equal to that of 12.08 pounds of carbon. This weight of carbon, on combining with oxygen, would generate as much heat as would convert 157 pounds of water, at the temperature of the body, into vapour.

An important feature in this experiment, and one which was strictly attended to, was, that no part of the perspiration was wiped from any part

of the body, and, his clothing being light and loose, the principal part of the water in the perspiration which passed through the skin would be converted to vapour by the heat of the body. Now, it appears from the tabular account, that 164 pounds of water passed off as vapour from the lungs and skin, being (164 — 157) seven pounds more than all the carbon and hydrogen in the food which formed carbonic acid and water would by combustion convert into vapour. There remains, therefore, more heat to be accounted for in this experiment than was imparted from the body to other objects.

I am not in possession of information on which I can depend for this amount of heat imparted to other objects during the twelve days, and for that which kept up the temperature of the body. We probably would not err much if we regarded it as equal to what would be evolved by the combustion of as much carbon, as is calculated for, as having disappeared in the form of carbonic acid.

The same person was made the subject of an experiment, which commenced on the 23rd of March and ended on the 3rd of April. His principal employment was spade-husbandry; his hours of labour about twelve each day. He increased one pound in weight in the twelve days. His food differed little from that in the experiment already described. The weight of food consumed was 182.08 pounds, which comprised 12.1327 pounds of carbon, and .3815 of a pound of hydrogen. The weight of carbon which appeared to have formed carbonic acid was 11.3117 pounds, and that of the hydrogen which formed water .3316 of a pound, and that of the water which passed off as vapour 150.033 pounds.

The quantity of dilute food consumed by this person, and that of the perspiration, appears large, and particularly the latter, when compared with the three pounds in twenty-four hours which Liebig assumes. But it may be observed, that while the three pounds may be regarded as "the evaporation through the skin and lungs" of a person in summer who takes little exercise, neither the quantity of dilute food consumed by this labourer, nor the water which escaped as perspiration, exceeded what nature required in these instances; and it is a circumstance of common occurrence with persons who labour in the way this man did, in very hot weather, to consume one gallon *per diem* of beer or cider, independently of other dilute food.

From these facts it is evident that the chemical action between the carbon and hydrogen in the food of man, and the oxygen he inspired, cannot be the only source of heat, consequently there must be some other source, or sources, from whence he derives heat.

How far these other sources of animal heat are connected with the nervous or any other part of the animal system, it is beside my purpose to inquire. This much, however, admits of experimental proof, that animals (as well as plants) secrete or form carbon; that in a healthy animal this secretion or formation of carbon bears a direct proportion to its exertions; that during this secretion of carbon, inspired oxygen disappears, and apparently the elements of water also; and, as the heat exhibited by the animal is in proportion to its exertions, I infer that the production of some portion of the heat generated by the animal economy is connected with the secretion of carbon.

Other experimental results and observations might be brought forward, equally conclusive, against views which Barou Liebig has taken of the sources of animal heat, but I trust the evidence comprised in these three papers is sufficient to satisfy every inquiring mind that there must be some other source from whence animals derive heat besides that of the combustion of the carbon and the hydrogen in the food; and that both in the paper read before a society of physicians at Darmstadt, and in his work on "Animal Chemistry," Baron Liebig has relied upon imperfect data, and come to very erroneous conclusions on this most important principle in animal physiology.

In my next communication I purpose showing that Baron Liebig's views on animal respiration are likewise at variance with established principles.

Greenford, Middlesex, December, 1846.



REFLECTIONS AND OBSERVATIONS  
ON INSANITY.

By JOSEPH WILLIAMS, M.D., &amp;c. &amp;c. &amp;c.

(Continued from p. 261.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

CRIMINAL LUNATICS.

A man of unsound mind who commits a crime confounds idealities with realities; and it is a question worthy of very grave inquiry whether, when a person is really insane, all responsibility for his actions should not cease, so that one who is *non compos* should not be chargeable with criminal offences.

It is impossible to define the invisible line that divides perfect and partial insanity, and while, on the one hand, indulgence must never be given to great crimes, inhumanity must never be shown to the defects of human nature. Lord Hale considered "such a person as, labouring under melancholy distempers, hath yet ordinarily as great understanding as ordinarily a child of fourteen years hath, is such a person as may be guilty of treason or felony."

According to Sir Vicary Gibbs, when Attorney-General, against Bellingham for shooting the Hon. Spencer Percival, a man may be deranged in mind, and may be incapable of conducting his own affairs, but is still answerable for his criminal acts "if he possess a mind capable of distinguishing right from wrong"; and Sir James Mansfield held that Bellingham was accountable, *because he knew murder was a crime, and could distinguish right from wrong*. Lord Erskine, on Hatfield's trial, said, "to absolve from criminal responsibility there must first be *delusion*, and, secondly, the *delusion* and the *act* must be connected"; but his Lordship did not attempt to lay down any rules by which such connection could be proved!

Lord Lyndhurst's question has been considered very sound: "Did the prisoner know that in doing the act he offended against the laws of God and nature?" but an endeavour will be made to prove that, although a man may know that he is offending against the laws of God and nature, nevertheless he may be occasionally an irresponsible agent.

Although a man may know right from wrong, yet, when labouring under hallucination, he cannot apply such knowledge reasonably to his own case; and in moral insanity, where there is no delusion, yet the propensities are diseased, and there is very often not only a total absence of self-control, but an instinctive wish or desire which irresistibly impels an individual to do deeds which are opposed to his reason, conscience, and affection. There is no form of insanity so dangerous as this, and the moment it is detected the individual should be immediately subjected to the necessary degree of restraint; numerous lives have been sacrificed from such delay or neglect.

There is now no doubt of the existence of *moral insanity*, so called by Dr. Prichard; the *manie sans délire* of Pinel, or instinctive madness; and when persons commit murder from this dreadful instinct there is often *premeditation*, with considerable ingenuity and deception. Generally the murderer at once confesses the deed, and appears unmoved; and it is by no means uncommon for a person afflicted with this dreadful propensity or destructive wish to warn his friends, to desire them to go, or to remove children or others against whom he feels the deadly intent.

The unfortunate and afflicted subjects of homicidal insanity feel the instinctive desire to murder, and yet know the enormity of the crime; the impulse is irresistible, and they sometimes even feel remorse while committing the deed; the desire is generally, although not always, for the life of their best friends, for their nearest relatives, often of the very persons they are caressing; it sometimes, however, happens that they seek the death of their most deadly enemy. What can we think when a son, who is insane, says, "Mother, take care of yourself, I am forced to kill you; I am no longer master of myself," who, before his attack, and subsequently to it, exhibits the greatest affection for his mother? And yet many persons who have

committed murder under such circumstances have been executed in this country, and especially in France. There can be but little doubt that different degrees of this homicidal propensity exist. Thus one person may give the necessary warning or caution, while another, from a more morbid and more violent impulse, at once executes the murderous deed.

A servant in the Baron Humboldt's family, in Germany, fell down before her mistress, and entreated her dismissal; and, on being asked by her mistress the reason, she said, whenever she undressed her little child the whiteness of its skin tempted her to tear the child in pieces. And there have been many other instances, and they are now not unfrequently occurring, where patients will themselves request to be confined, to prevent them from doing some particular mischief, or even from murdering others.

A great peculiarity, however, occurs in some cases: the perpetrator masks his design by consummate flattery and deception, but, when he has accomplished the deed, he generally at once confesses it, and seldom denies the crime, usually remaining in an apathetic condition. Amongst these dreadful and dangerous lunatics there is a great propensity to imitate, and, therefore, those minute details so frequently given in the daily papers should be partially suppressed. The greatest care and precaution are also necessary wherever the hallucination is of a dangerous character, for such persons will conceal and even deny their hallucinations, and dissemble their resentment, and on the very first opportunity they gratify their revenge. It is worthy of remark, that many lunatics who have threatened others and themselves have not, on their recovery, had the slightest recollection of any such denunciation, which to a certain extent proves their irresponsibility at the time.

In the delirium of fever patients frequently attempt suicide, or endeavour to murder others; suicide is, however, much more common under such circumstances, and every precaution should be unceasingly maintained in these cases: many lives are annually sacrificed from such neglect.

Nothing is more prejudicial than the minute details of murders given by the daily press; it often creates and fosters a morbid appetite for that which is horrible, disgusting, dangerous. How often, when a murder has been committed, do those predisposed to insanity feel irresistibly inclined to imitate these horrible crimes!

The occurrence of a murder, especially when accompanied by any peculiarly singular or horrifying circumstances, is very frequently the harbinger of others, which result from imitation. After Henriette Cornier had murdered an infant in Paris, within a few days M. Esquirol knew of six instances where persons, some of them ladies, felt the same irresistible desire. Amongst silly, weak-minded, and highly nervous individuals, there is a great propensity for imitation, and this applies especially to things of a dangerous character; and this shows how very wrong it is for the daily papers to give such minute and disgusting particulars, when a murder occurs. The mere perusal of such an account drives these poor creatures mad; they have previously the predisposition, and, if kept free from excitement, may even pass through life tolerably comfortably; but they read of a dreadful murder, it haunts them, they tremble at it, and yet they are tempted to imitate it. When Courvoisier murdered Lord William Russell, the papers daily gave minute accounts of that diabolical affair; it was in every person's mouth. A respectable female, whom I had previously attended for general indisposition, came to me one morning in an excited state, and said, with tears in her eyes, "That she was tempted during each night to cut her husband's throat; that she loved him dearly, and trembled at the idea of the deed, but sometimes she felt as though she must do it." Even when speaking to me, she grasped her hand as though it clutched the deadly weapon. I had considerable doubt in this case what to do, whether to have her temporarily restrained, and I felt great anxiety for several days; but I am happy to say no mischief resulted from her liberty. I ordered her soothing medicine, and directed her particularly to place confidence in Him

who never sleepeth; and I firmly believe that the very act of prayer, and the fact of such persons feeling that they are placing trust in another, and not in themselves, will relieve many of these afflicted individuals of their morbid, perverted, and often deadly propensities: for, be it observed, they can be reasoned with, they know their actions and their consequences, but they feel an irresistible impulse within themselves, which is uncontrollable; and I believe in such cases, that if they will trust in God, if they will refer their own want of self-confidence and control to Him, in addition to His blessing, by the simple act of believing that there is a protective influence, and by transferring the responsibility from *themselves*, and referring it to *another*, that this very transference, of itself, actually tends to remove from them their preternatural desires; and to illustrate what I mean, I may say, I believe if a Hindoo female, suffering under such temptation, really believed in the power of one of her gods, and, when sorely tempted by this moral depravity, that she placed full confidence in her god's protective power, that this feeling of assurance and trust would be sufficient to reassure her. Need I add, that if I believe the Hindoo may possibly be relieved by her confidence and trust in an image, how much more I feel the efficacy would be by the Christian woman placing her trust in One whom she knows is too wise to err, who never slumbereth, and who never refuseth those who put their trust in Him?

Many murders have been committed, many lives sacrificed, in obedience to this instinctive prompting, and often where there has been no animosity, where nothing but mutual regard and affection have existed between the homicide and his victim; and it is remarkable that children are special objects of sacrifice. There appears to be no delusion, no hallucination; it arises from an irresistible wish and desire.

The man who murdered Mr. and Mrs. Bonner, in Kent, had no delusion whatever, nor any motive of revenge; he had always been treated by them with the greatest kindness; but he felt a sudden and irresistible desire to kill them, in which he unfortunately succeeded. He was executed—declaring to the last that he could only account for the act by the promptings of the devil.

In the case of Stannynought, who murdered his child, whom he ardently loved, he was acquitted on the ground of insanity, although no delusion whatever was proved either previous to, or at the time of, the fatal act. He was consigned to an asylum, and soon after verified his insanity by committing suicide.

In a recent case which occurred at Greenwich on the 4th of May, 1845, Martha Brixey, aged eighteen, murdered an infant by almost severing the head from the body. It appears she went down from the nursery to the pantry, took out a large table knife, and, when asked by the housemaid what she was going to do with it, said, to cut Miss Mary's pencil; when told a smaller knife would do better, she said she would take it with the larger one as well, as it would do to cut the child's bread and butter in the afternoon. She then tried the edge of the large knife with her finger and thumb, and went up stairs, taking both knives with her.

Within a few minutes she had effected the deed, and immediately went down stairs to the father and said—"Oh, sir, what have I done, will you forgive me?" She then said—"Oh, sir, I am a murderer, I have murdered the dear baby, I have cut the dear baby's throat." She then went down on her knees and prayed God to forgive her. She had always previously been kind to the child in every respect.

She was under medical treatment at the time, and complained of a curious sort of aching pain in her head; she was dull and restless, and had burnt the skirt of a mourning dress given her by her mistress because she considered it did not fit her, whereas it really fitted her very well, and her fellow-servants saw nothing the matter with it; she often became excited about this dress, and on one occasion said, "she wished it at the devil." Her mistress was informed of the dress having been burnt, reproved her for it, and said if she repeated such conduct she should leave; she was, however, pardoned. She still persisted in the delusion about the dress; went



again to the dressmaker respecting it, although desired not to do so, and she was so obstinate and troublesome respecting this dress that she received warning to leave.

She became very unhappy, and two or three days before she committed this awful deed, when trying to cheer herself, said, "I need not make myself so very unhappy as I do, one would think I had committed murder, but I have not done so." When reproved for talking thus, by her fellow-servant, she asked her, "If she ever knew of a woman being hung?" The reply was, "Why, if they commit murder, they are hung as well as men who were guilty of that offence"; she then said she would as soon be hung as transported or put into a mad-house. Her fellow-servant stated, that from the time she came home with the dress in her hand she seemed to be in a state of melancholy and wretchedness; and on the same morning, and only three quarters of an hour before she committed the murder, she said to the housemaid, "Oh, Elizabeth, I wish I was dead."

In this case there can be no doubt but that the act was committed by a person who was deranged. The housemaid had of late noticed a change in the girl's appearance; the doctor who attended her for constitutional irregularity had suggested to her master that she should be sent away, as she exhibited great violence of temper in burning the dress, and was consequently unfitted to be amongst young children. She was very restless and unsettled, found the Greenwich air disagree with her, and that she would leave, then that she would stay, and there was great waywardness and caprice; and then her saying to her fellow-servant, when desponding and previously to the act, that she had not committed murder, and that she would as soon be hung as sent to a madhouse, thus affording the presumption that she had suspicion as to her own sanity—a circumstance so often noticed in these cases.

Subsequently to the act, she asked the police constable in charge, if he thought her master would forgive her "in a week's time," and then the absurd particularity about changing her boots, and the want of another gown, collar, and gloves, expressed so coolly and deliberately so shortly after such a dreadful catastrophe, all tend to show that the jury acted most wisely in acquitting the prisoner on the ground of insanity.

Her counsel, after commenting on the medical evidence, urged the absence of all motive, and the strange wildness of the manner in which the act was committed, as proofs of her being irresponsible. —(For a full report of this trial, see *Medical Gazette*, p. 166, vol. xxxvi.)

A similar case occurred in France; a verdict of guilty was returned, but without premeditation, although the girl had herself admitted the premeditation, and that she had even caressed the child that the mother might intrust it to her! She was condemned to perpetual imprisonment with hard labour, and to be branded. On hearing this sentence she betrayed no emotion.

It appears that in homicidal insanity there is an instinctive impulse which is often irresistible, although conscious of its being wrong. Persons so afflicted would avoid it, but cannot do so, and will even often caution those whose lives are in danger. Whenever this is the case, there should immediately be some control exercised over such an individual. This was strikingly evidenced in the case of a physician who committed suicide the other day: he had warned the father of the children with whom he temporarily resided "that he had a desire to kill his children"; within a few hours from that time he had committed suicide. Now, had this unfortunate gentleman killed his friend's children, many persons, particularly had it occurred in more humble life, would have considered it necessary to make an example of him, thereby hoping to prevent the recurrence of such a dreadful catastrophe. Now, it should ever be remembered that while the insane do sometimes take away the life of others, in the great majority of cases they are tempted to sacrifice themselves.

To prove how necessary it is to take charge of a person who appears suicidal, I refer to the case of Captain James Purington, of Augusta, Maine, who

was very avaricious, and, his farm suffering from drought, he feared his family might starve. One Sunday his second daughter saw him writing a letter, which he, perceiving, hid. He asked for his butcher knife, made it sharp, stood before the glass, and seemed preparing to cut his throat. His daughter seeing it, asked what he was doing? He said, calmly, nothing. The letter he had written was found, and was addressed to his brother, informing him he was going a long journey, and directing him to take charge of his children. The next day he told his wife he had a presentiment his death was near. The day after he ground his axe, and in the evening was reading the Bible, at Ezekiel, chap. ix. At two in the morning, his eldest son alarmed the neighbours. When they arrived, they found Captain Purington was lying on his face dead, with a razor by his side; he had killed two sons in this room, and in the next room were his wife, and a daughter ten years of age, both killed; in another room a daughter, aged nineteen, was found dreadfully butchered, and another, aged fifteen, desperately wounded; also an infant, eighteen months old, with its throat cut. The eldest son was also wounded, and Captain Purington attacked and dreadfully mangled the second boy, twelve years of age, who attempted to escape. During the time of this dreadful scene, this maniac did not speak a word.—p. 133, *Prichard, quoted from Parkman's Illusions of Insanity*.

Some persons suffer from a violence of temper which is so uncontrollable and unnatural that it has been termed *instinctive rage*; this sometimes comes on at regular intervals; it is called by Pinel, *emportement maniaque sans délire*.

Even a man who harbours resentment, for the time, often much resembles one who is mad; his opinions are in one moment changed. His amiable friend is now his bitter enemy, he despises him; his very excellences become failings, and his virtues, vices; but reflection, in cooler moments, brings in its doubts, and he now finds how unjust his suspicions and conduct have been. If rage can produce such a resemblance, how careful should men be not to allow their passion to be excited. Self-restraint, self-government, will often prevent insanity, and uncurbed passion will not unfrequently induce it.

*Partial insanity* is recognised by the law in civil cases, and any act performed during its continuance is invalid; but in *criminal* cases it does not excuse from responsibility unless the insanity is proved to be the cause of the act.

Lord Erskine held, that when a maniac commits a crime under the influence of an impression which is entirely visionary, and purely the hallucination of insanity, he is not the object of punishment; but that, though he may have shown insanity in other things, he is liable to punishment if the impression under which he acted was true, and the human passion arising out of it was directed to its proper object.

A distinction has been drawn between the two cases of Hadfield and Lord Ferrers. Hadfield believed the end of the world to be at hand, and that this would be accelerated by the death of George the Third. Lord Ferrers, although insane, murdered a man against whom he felt deep resentment, and from whom he supposed he had received injuries. Hadfield was acquitted, his action being attributed to hallucination; Lord Ferrers was left for execution, because his passion was founded on real events, and was directed to its proper object.

Lord Erskine appears to have been in error in holding Lord Ferrers to be liable to punishment, because the impression was founded on fact, as the insane are apt to attach undue importance to facts, whether right or wrong, but cannot estimate the relative value of these facts; they hold distorted views of the relation of things to each other, and it would be wrong to place too much importance upon this case as a precedent, it being far more safe to be guided by the various circumstances connected with the case itself, as also by the evidence of insanity on other points.

Persons who are insane constantly mistake idealities for realities; they cannot judiciously

compare facts with each other, they mistake one thing for another. Thus one man related that he had fought the devil and broken his ribs, and on inquiry it was found that he had really broken the ribs of a keeper whose physiognomy he disliked. And in a case in Scotland, an insane woman fancied she had killed the devil, when she had poured vitriol down her own child's throat. So in an instance where antimony had been given to nauseate a patient, as its effect was gradually induced she attributed it to sea-sickness, and imitated the motions of a rolling vessel—so that they often reason incorrectly, drawing wrong inferences from facts, and even mistaking the facts themselves.

To prove that Lord Erskine's opinion is not satisfactory, that because the resentment of Lord Ferrers and the consequences were founded on fact, that therefore he was considered responsible, we need only adduce the instance of an unmarried woman who murdered a man who had seduced her, and this woman was very soon found "in a state of undoubted and deplorable insanity." Here the resentment met the right object, in the person of a man who had inflicted upon her the greatest of earthly injuries, and according to Lord Erskine's theory, this woman's life should have atoned for the deed. Besides, an hallucination may be imaginary, or it may be valid, founded on a *real event*, viewed in false relations, and leading to false consequences: the reasonings are distorted, and it is highly probable that some occurrence, some real idea or fact, always gives rise to the hallucination, although not detected by or known to the inquirer. Thus, a priest imagining he was commissioned by the Virgin Mary to take the life of a man for whom he had acted as confessor, probably was led to this erroneous deduction by falsely reasoning upon the facts disclosed to him in confession, these possibly having been of a heinous character. And to prove that hallucination may represent a real event, a man may as an hallucination believe his wife to be unfaithful, and such may be the *fact*; so that the fact may be true, and yet may have arisen spontaneously in a person's mind from an hallucination.

Where there is hallucination, and this especially refers to and causes the act, a lunatic is held irresponsible for such act, however criminal; but it must be proved by most distinct and unquestionable evidence, that the prisoner was incapable of judging between right and wrong when he committed the act.

Thus, in *Rex v. Offord*, for murder, having shot Chisnall—defence insanity—the prisoner having supposed that the inhabitants of Hadleigh, and especially Chisnall, continually issued warrants to deprive him of life; he also frequently abused people in the streets, with whom he was unacquainted. In his pocket a paper was found, headed "List of Hadleigh conspirators against my life," and amongst forty or fifty names "Chisnall and his family" were included; there was found also another paper stating "This is the beginning of an attempt against my life."

Several medical witnesses deposed that they considered this a case of monomania.

Lord Lyndhurst, in summing up, told the jury they must be satisfied, before they could acquit the prisoner on the ground of insanity, that he did not know, when he committed the act, what the effect of it, if fatal, would be, with reference to the crime of murder. The question was, did he know that he was committing an offence against the laws of God and nature? His Lordship referred to the doctrine laid down in Bellingham's case, by Sir James Mansfield, and expressed his complete accordance in the observations of that learned Judge. The jury acquitted the prisoner on the ground of insanity.

So here, it appears, that it is justifiable to acquit a prisoner indicted for murder on the ground of insanity, if the jury are satisfied that he was incapable of judging between right and wrong, and at the time of committing the act did not consider that it was an offence against the laws of God and nature.

This was the opinion of Sir James Mansfield in Bellingham's case, who considered "that in order to support such a defence it ought to be



proved, by the most distinct and unquestionable evidence, that the prisoner was incapable of judging between right and wrong; that, in fact, at the time he committed the atrocious act with which he stood charged, he did not consider that murder was a crime against the laws of God and nature, and that there was no other proof of insanity which would excuse murder or any other crime. That in the species of madness called "lunacy," where persons are subject to temporary paroxysms, in which they are guilty of acts of extravagance, such persons committing crimes when they are not affected by the malady would be, to all intents and purposes, amenable to justice, and that so long as they could distinguish good from evil they would be answerable for their conduct. And that in the species of insanity in which the patient fancies the existence of injury, and seeks an opportunity of gratifying revenge by some horrible act, if such a person be capable in other respects of distinguishing right from wrong, there would be no excuse for any act of atrocity which he might commit under this description of derangement.—*Carrington and Payne's Reports*, vol. 5, p. 168.

The fact seems to be that these homicidal lunatics are often conscious of the enormity of the crimes they commit, and frequently murder, knowing it to be wrong, and even in some instances to obtain death themselves.

Martin, when he fired the cathedral at York, knew he was doing wrong, but said that he had a commission from God to do it. On every other subject he was rational. Hadfield knew his own life was forfeited, but was tired of it. Greensmith, imagining he might as well suffer for four children as for two, actually returned and murdered the remaining two.

James Hadfield had been discharged from the army on account of insanity, several years having elapsed since he was first deranged, but according to Lord Hale's doctrine he was on the day of offence sufficiently sane to allow of the imputation of guilt; of his insanity, however, there could be no doubt. He had been left as dead on the field of battle, his brain having probably been injured by three wounds he received on the skull. His comrades subsequently called him King George. He had been discharged from the army as insane. He was subject to paroxysms, and at such times was blasphemous, would threaten a favourite child's life, saying he would dash out its brains. He imagined he held intercourse with God, and called himself both God and Jesus Christ. He often spoke highly of the royal family, and on the morning of the day on which he attempted the King's life he was worse than usual, and said he had dined with the King.

His act was most deliberate. He sat in the theatre three quarters of an hour waiting for the King, and when his Majesty entered Hadfield coolly took deliberate aim, and fired a pistol he had previously loaded with slugs. When apprehended he said "he knew perfectly well his life was forfeited, that he was tired of life, and regretted nothing but the fate of a woman who was his wife, and would be his wife a few days longer, he supposed." He also said he made the attempt to get rid of his life, of which he was tired, and that he did not intend anything against the life of the King.

Here, according to Lord Hale's doctrine, the lunatic was responsible, "for he knew his life was forfeited," and he was quite aware of the nature of his offence. But as Lord Kenyon, who tried the prisoner, wisely held, that, as the prisoner was deranged immediately before he committed the offence, it was not probable he had recovered his senses in the interim, and there was no reason to believe him to have been at the period he committed the act a rational and accountable being. He was acquitted on the ground of insanity.

(To be continued.)

WAR-OFFICE, Jan. 1.—36th Foot: Assistant-Surgeon James Jopp, M.D., from the 2nd Foot, to be Surgeon; Francis Smith, gent., to be Assistant-Surgeon.

APOTHECARIES' HALL.—Gentlemen admitted members Dec. 31, 1846: Cornelius Black and Charles Thompson.

## OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,  
Surgeon to the Central London Ophthalmic Institution,  
formerly House-Surgeon to St. Bartholomew's Hospital.

### STRABISMUS CONVERGENS, AND ITS TREATMENT BY OPERATION.

(Continued from p. 262.)

#### PART II.

*Cases admissible for the operation; question of delaying it; operation; state of the internal rectus; effects of the operation and causes of failure. The eye does not always assume a central position immediately; unfavourable results; relapse; after-treatment; conclusion.*

*Cases admissible for the Operation.*—There has been, and is still, great diversity of opinion on this part of the subject. Few permanent squints disappear spontaneously; I cannot, from my own practice, adduce a single instance. I should be happy to record any recovery consequent on mechanical or constitutional treatment, but, unfortunately, I am not able.

I have seen slight improvement in the squint result from the renovation of health in children, who have been brought under my care for squinting, when the vital powers have been much impaired from teething, worms, and disorders of the abdomen. Adults that have been affected from childhood will often have their squint more marked when they are out of health, and particularly with depression of nervous power.

I should never operate when the causes which seem to induce the affection are present; when there exists inflammation of the eye-ball or its appendages; nor, of course, when the obliquity of the eye is a provision whereby alone the patient can see, in consequence of opacities of the cornea, or changes in the shape and position of the pupil.

There is an unhealthy condition of the tarsi, especially the upper, in which they contract, their edges becoming thick and indurated, which will contraindicate the operation. I shall allude to this more particularly presently.

*Question of delaying the Operation.*—After it has been ascertained that the case is a proper one for an operation, I cannot see that there is any advantage in its delay, except in very early childhood. I have not operated earlier than between the second and the third years.

When, in answer to queries from parents, I advise an immediate operation, I am frequently met with the rejoinder, "But is there not a chance of the child's outgrowing the deformity?" There is a strong feeling, in and out of the profession, that the operation should be delayed until after puberty!

There is much to be said *against*, but nothing that I am aware of *for*, the postponement. Imperfection of vision, so common in squinting eyes, is almost always a secondary effect, and is not always removed by setting the eye straight; but I strongly suspect that its restoration will be in proportion to the earliness of the operation.

Deficiency of abducting power is much more frequent in squints of long standing than those of recent origin. Another objection to the delay is the change that the conjunctiva and subcellular tissue at the inner corner of the eye undergo, whereby they are thickened and hardened, and make the operation less easy. These changes of structure are more frequently seen in the inveterate squints, where the abducting power is lost, or nearly so.

*Operation.*—The instruments I use are few and simple. They consist of a wire speculum with a wooden handle, a blunt hook very slightly curved, a pair of scissors rather blunted at the points, and a pair of forceps. Formerly I thought that it was absolutely necessary to employ the sharp or conjunctival hook, as it is commonly called, but I have long since dispensed with its use, having deemed it a dangerous and an awkward little instrument. I do not use measures preparatory to the operation, unless there be special indications for such.

When the patient is possessed of sufficient firm-

ness not to offer any resistance, the operation is a very simple affair. A surgeon with well-educated fingers may perform it without any assistance. It is, however, advisable to have a second person, if only to counteract any untoward motions of the patient. Children and refractory persons must be effectually secured. I imagine it quite unnecessary to enter into detail about the method of securing them. Common sense will suggest all that is necessary on that point.

Supposing, then, the patient adult and firm, I prefer him seated in a chair, with an assistant behind him, steadying the head whilst he elevates the lid with the speculum. I depress the lower lid, with the third or the little finger of whichever hand I may use, with the forceps; while I raise, with that instrument, a small fold of the conjunctiva midway between the cornea and the semilunar fold, and cut it through. The blunt hook is then introduced and passed under the muscle, which, being made prominent, is divided, together with the conjunctiva that may be over it. In the first instance, I divide a very small extent of the conjunctiva, just enough to admit of the free passage of the hook, and afterwards of one of the blades of the scissors. When the hook is introduced, I can as effectually secure the muscle as if the whole of the conjunctiva had been dissected from the inner side of the ball of the eye. I prefer my method because it is more simple, and makes less of the operation; and above all, the semilunar fold is less disturbed, and remains more perfect after the small cut has healed, than when there has been a free dissection of the conjunctiva. It is stated among the objections to the operation, that there often remains a vacancy at the inner angle of the eye. That blemish is occasioned by the loss of the semilunar fold of the conjunctiva.

If the hook be passed in a line below the pupil, in its ordinary state of dilatation, and directed backwards to a sufficient distance, and be then swept along the side of the globe, and its point made to project in a line just above the pupil, the muscle must be secured.

When the conjunctiva, or the cellular tissue beneath it, or both, are thickened, a greater nicety is required to get at the muscle. The conjunctiva may be easily cut through, and the subjacent tissue prevent the passage of the hook. I have taken up the tissue thus thickened, and divided it, under the idea that it was the tendon of the muscle. Again, the conjunctiva may itself be thickened, and offer more resistance to the scissors than could be supposed. I overcome the difficulty, if such it can be called, by observing the rule, never to introduce the hook till I have exposed to view the denuded sclerotic. When the conjunctiva and the tissue beneath it are healthy, the small cut that I have spoken of above will always enable it to be seen. When one or both are thickened some dissection will be required.

After the muscle has been divided the operation is ended. I do not pass probes, or other instruments, into the orbit, with the intention of pushing the severed muscle behind to encourage a more posterior attachment, or adopt other manoeuvres that are commonly resorted to. Generally there is little or no bleeding, and a sponge is seldom required.

*State of the Internal Rectus.*—I have certainly observed a difference between the size and the colour of the muscles of different individuals, but I cannot say that I have ever met with what may be called an hypertrophied muscle. It has never been, so far as I could judge, larger than I have seen it when dissecting. While preparing this paper I have dissected an orbit, for the purpose of examining the internal rectus, and I am quite satisfied with the accuracy of the above statement. Muscular fibres, or tendinous expansion, will be met with, in proportion as the conjunctival cut is made near to the cornea, or otherwise. I have not noticed any variation in the attachment of the muscle, nor any supplemental slips passing from it. I do not bandage the eye which is not the subject of the operation, as I do not see the necessity for it.



*Effects of the Operation, and Causes of Failure.*

—As a rule, when the internal rectus muscle of a squinting eye is divided, the eye will assume a central position in the orbit. But so good a result is not always to be obtained: sometimes the eye is as badly adducted as ever; sometimes it is only more or less improved. The failure in such cases, partial or complete, is due to a want of power in the external rectus muscle to abduct the organ. I do not regard the thickening of the conjunctiva and subcellular tissue as impediments to abduction; I am certain, indeed, that they are not.

Some deficiency of abducting power in squinting eyes is not uncommon, and, according to the extent of this want, some idea of failure may be formed; and particularly so, when the abducting power is greatly or wholly wanting. But there are exceptions which will not always allow of a correct prognosis being arrived at. In four cases on which I operated, of what may be called fixed eyes, there being no power of abduction in them, the division of their internal recti set them straight. When the patient can turn the eye outwards, as far as the centre of the orbit, the operation may be undertaken with great confidence of success. The deficiency of power in the external rectus is, I think, almost always a secondary affection, induced by an over-action of the internal muscle. I have not recorded, nor can I remember, any case where, with full abducting power, the operation has failed. I am aware that some think that the inner fasciculi of the upper and lower recti exert a strong influence in producing the squint, and, after the division of the internal rectus, will occasionally keep the eye a little adducted; and therefore that the external rectus, if partly, is not wholly, at fault.

I have been dwelling on the unavoidable impediments to a successful operation. From that I pass on to the consideration of failure attributable to the operator.

Without doubt, to the operator is to be attributed the odium of failure in nearly all the unsuccessful cases. A long and familiar acquaintance with the subject has convinced me of this. What I have called unavoidable impediments to a successful issue are really rare. I have operated, in several instances a second time, on cases that had passed under my hands before I understood the operation well, and all of them succeeded. I have operated a second time on the patients of others also, and with an equally good result. I was encouraged to undertake the second attempt, in each instance, on account of the abducting power which the patient possessed.

It will probably appear to some, that I say more on a common little operation than is necessary, but I have often known it fail from want of skill or knowledge in the operator. Over and over again, after bungling attempts, I have seen the patients dismissed, under the supposition that it was impossible to put their eyes right, when I have been certain that the muscles had not been divided.

In the operation for squinting, as in all others where delicacy and exactness are required, there must be failure in the hands of those who are not in the constant habit of performing it.

There is a greater liability to take up a portion only of the muscle than one would think, of which any one may convince himself by operating on the dead subject, when he will find that, unless there be great precision, he will be apt to do this.

A partial separation of the muscle will, almost always, lessen the squint; but for its entire removal not a portion of the muscle can be allowed to remain undivided. I know of no exception to this.

When the muscle is divided, the patient has not the power to adduct the eye in concert with the other.

An operator often thinks that the case has succeeded, and deceives himself, from not making a proper examination. The inability, and often the unwillingness, of the patient to open the eye, prevent a satisfactory inspection. These ob-

stacles must be overcome by gently raising the lids of both eyes at the same time, and comparing the positions of the eyeballs.

*The Eye does not always assume a Central Position immediately.*—For any length of time to elapse before the eye assumes a central position after the division of the internal rectus is a rare occurrence. I can furnish but two examples:—The first is from my own practice; it was a case of double squint, which occasioned me some mortification, for several professional friends were present to see me operate. E. L., a lad, aged thirteen; both eyes adducted, the right more than the left; either could be abducted as far as the centre of the orbit. He had squinted from early childhood. The left had the better vision of the two. I performed the double operation at a sitting. The left was slightly improved, the right not at all. Diligent search was made in vain for any remaining muscular or cellular connection. The case was considered a failure. On my visit next day both eyes were straight. There was inability to turn them simultaneously towards the nose, but they could be moved freely in other directions. When the patient retired to rest the night before, they were as when I left him; on rising, however, next morning, all was right.

The second happened in the practice of a friend. I assisted at the operation. The patient, a male adult, squinted in one eye. The operation produced no improvement. I saw him two months after: the squint was gone. He told me that nearly a week elapsed before the eye was straight.

In operating twice on the same eye, some patience and trouble are required to detach any portion of the conjunctiva, for the inflammation consequent on the first operation, always makes it adhere intimately to the eyeball.

*Unfavourable Effects of the Operation: Double Vision.*—This is occasionally induced when the eye has become everted, but it does not always remain. Like the double vision in the early state of strabismus convergens, it is generally lost in a few days.

*Protrusion of the Globe.*—In a greater or lesser degree, protrusion will be met with in nearly all cases, sometimes it is so slight as to require close inspection to observe it.

*Eversion.*—This is rather common; when it occurs it is always more marked immediately after the operation, and lessens or disappears in a few days. A very marked case has never resulted from any of my operations. Now and then I see a youth who has his right eye completely turned outwards, the eye is also the most prominent one I ever saw. His operator used to be an advocate for dividing the inner portion of the superior rectus muscle, in addition to dividing the internal muscle. I am almost sure that in this instance he carried out his crotchety operation.

I have never divided the external muscle to remedy the eversion, nor should I ever think of attempting it under any conditions.

*Opacity of the Cornea.*—I have before said, that contracted tarsi, with thickened and hardened edges—*entropium*—forms an objection to the operation on account of the protrusion of the globe that ensues; if, however, the protrusion were slight, no ill would ensue, but this cannot be ascertained beforehand. The result produced would be similar in kind, though more marked, to the opacity in conical cornea, caused by the mechanical irritation of the lid on the apex of the cornea. I have seen only one case of such opacity following the division of the internal rectus muscle. The eyeball was very prominent, the lids hard and contracted, and the cornea had become cuticular. The patient was not one of my own.

*Relapse.*—I am quite unacquainted, from personal experience, with relapse. One not unfrequently hears that there are relapses, but I question if the deformity had ever been removed. It is very probable, that with a partial division of the muscle, cases have improved, and in a short time become as bad as ever.

*After-treatment.*—This consists in doing nothing. The eyelids may be ecchymosed and

the conjunctiva chemosed, but each passes away as quickly without as with lotions and leeches. I do not ever cover the eye with a bandage or a shade, unless the patient particularly desire either. Most patients pursue their avocations directly after the operation. The cut in the conjunctiva often takes on what I have been disposed to regard as an unhealthy appearance, but I have never known an instance of its not healing readily and kindly. Once it united by the first intention. The little granular mass that sometimes springs up on one of the edges of the wound ought to be removed with a pair of scissors. Escharotics should by all means be avoided. This little fungus seldom appears, unless the conjunctiva has been lacerated, and partially detached from the eyeball.

*Conclusion.*—It is not necessary to dilate on the improvement produced in the appearance of a squinting person, by making his crooked eye straight. The bettering or the restoring of vision consequent on a successful operation is of more importance than the removal of the deformity of the squint, conspicuous and distressing as that is. The defective eye often produces so much confusion of vision that that eye requires to be closed whenever an object is examined attentively. It is not necessary for this confusion that the squinting eye be imperfect in vision, for, when used alone, its vision might be quite as good as that of the sound eye.

Even when the sound eye is not interfered with by the squinting one, confusion of vision and double sight being absent, the patient sees better after the eyes are parallel.

Sometimes the vision of the squinting eye is so bad that only large objects can be discerned. Should such an eye be the only available one for vision, the other having been injured or lost, a successful operation, by removing the deformity, may restore the sight also, and be a great boon.

When the imperfection of vision is the consequence of squinting, improvement or return of sight may be expected on the liberation of the eye. What I have before stated must be borne in mind, viz., that the restoration will be in proportion to the earliness of the operation.

The operation for squinting may be made subservient to another and a different operation. I have found it advantageous to remove a squint, before I have operated for cataract in the same eye.

Happily a very fair proportion of cases does not present, after operation, what I have described as "unfavourable effects." Many exhibit them in a very slight degree only. In several of my own cases that I have seen a year or two after the operation, I have required to look very narrowly, and sometimes to call on my memory to assist me, before I could decide on which eye I had operated.

13, Bernard-street, Russell-square,  
Dec. 31, 1846.

*Errata in No. 379, Jan. 2.*

Page 262, column 1, line 16, for "toil" read "time." Column 2, line 49, for "adducting" read "abducting." Column 3, line 17, for "being" read "possessing."

**POOR-LAW MEDICAL RELIEF.**—To show you the iniquity of the present system of giving medical relief, I draw a comparison between the charges of a poor-law doctor and a veterinary surgeon:—

"The Guardians of — Union,

"Dr. to —, M.R.C.S.E.L.A.C.

"Attendance upon 285 paupers, supplying medicines, &c., during the quarter ending Sept. 29, 1846. . . . . £10."

"Mr. —, Farmer,

"Dr. to —, M.R.V.C

"Attendance and cattle medicines to 15 cows affected with epidemic. . . £12. 15s. 6d."

You may rely upon the accuracy of this, and the public can draw their own conclusions.—*Correspondent of the Times.*



## PROGRESS OF MEDICAL SCIENCE.

## France.

## ACADEMY OF SCIENCES.

Meeting of Dec. 28; M. MATHIEU in the Chair.

ON THE ANALOGIES BETWEEN THE SUPERIOR AND INFERIOR EXTREMITIES, BY DR. AUZIAS TURENNE.—This question, which many have investigated, particularly Vieq d'Azyr, Chaussier, Scemmering, Meckel, and Cuvier, has also occupied Gerdy, Flourens, Cruveilhier, and Blaudin. In order to arrive at the vital parts of the question, man must be supposed in the quadruped position, and the limbs of animals, particularly of monkeys, should be taken for standards of comparison. The inferior extremity of one side finds its analogous parts in the shoulder, arm, and the two superior thirds of the arm of the opposite, and in the inferior third of the arm and hand of the corresponding side.

TUMOURS OF NERVOUS TISSUE.—M. Bouvier presented tumours found on the third and sixth pair of nerves. They were situated at the origin of the nerves, and bore a close resemblance to ganglions of the sympathetic, with this difference, that they were rather more red and more vascular. Their length was fifteen millimètres, and their diameter at least three times greater than that of the nerve itself. The usual symptoms of paralysis of the third pair had been present during the last months of life. The subject was a man of thirty, who had died from the gradual progress of paralysis, which had first begun on the left side, and lately became general. On dissection, the right corpus striatum was found in a state of ramollissement. On the left part of the pons varolii and on the left crus cerebri an alteration was observed, consisting of small, irregular red tumours, which had invaded a portion of the medullary substance, into which they penetrated to the depth of several millimètres.

## HOTEL DIEU.

## CLINICAL MEDICINE.

TOXICOLOGY.—CASE OF POISONING BY THE SULPHATE OF COPPER.—TREATMENT BY STIMULANTS.—A woman, aged thirty-six, of a spare habit, and suffering from tubercular disease of the lungs, attempted on the 3rd of September, 1846, to put an end to her life, and took twenty grammes (℥jss.) of sulphate of copper in a glass of water. The poison was not completely dissolved, and one part penetrated into the nose, whilst another obstructed the mouth and fauces. The patient was immediately seized with pains in the throat, stomach, and nose, and sickness soon followed. A quarter of an hour after a physician was called, and twelve eggs, some milk, and some linseed-water were given. The uvula was touched with a feather, and abundant vomiting took place, accompanied with copious abdominal evacuations. In the course of the day the woman was brought to the hospital, and during twenty-four hours antiphlogistic treatment, in the shape of poultices, abundant drinks, and composing mixtures, was employed unsuccessfully. The pulse remained quick and small, the skin cold, frequent subsultus tendinum was noticed, and the vomiting was incessant: since twelve hours no urine had been secreted. The following stimulant mixture was exhibited:—℞. Vin. rubri ʒiv., tinct. cinnam. ʒij., syrup. ʒss.; and in a very short time considerable improvement was observed: the vomiting was arrested, the urine returned, and the pains ceased. The sense of burning in the stomach disappeared. The treatment was continued during four days, when the patient was dismissed.

OBSTETRIC MEDICINE.—CASE BY DR. CZAJEWSKI.

WOUND OF THE UTERUS DURING PREGNANCY—PREMATURE ACCOUCHEMENT—PERITONITIS—RECOVERY.

The "Journal de Chirurgie" for December contains the following interesting case:—

"On the 18th of July, 1845, a peasant woman, aged twenty-seven, of habitually good health, ad-

vanced five months and a half in her pregnancy, was chasing a cow with a pitchfork, which she held by the forked extremity. The handle of the instrument accidentally became fixed in the ground, and the woman, carried on by the rapidity of her movement, fell on the pitchfork, which penetrated deeply into the abdomen. Through both wounds a green and yellowish fluid escaped in intermittent streams, but the patient preserved sufficient strength to walk to her home, distant 500 mètres (about one-third of a mile). During the following two days she remained in bed, and on the morning of the 20th of July was delivered by Dr. Czajewski of a stillborn child. On the body of the foetus a wound several millimètres in depth was observed on the lower angle of the left scapula. The placenta was also perforated in the vicinity of its circumference. Some symptoms of the peritoneal inflammation having been observed, leeches were applied twice, and mercurial ointment was rubbed over the surface of the abdomen, the wounds of which healed at once. One of them burst open eighteen days after the accident, and yielded passage to six ounces of fetid pus, and afterwards to fecal matter. This orifice was seated at one inch from the symphysis pubis, at four from the umbilicus, and rather to the right side. Its extent was a little more than one inch. The fistula was cauterized several times, and was completely obliterated within the space of five months."

## DISEASES OF THE PLACENTA.

(Thesis of the Faculty of Strasburg, by Dr. Tæger.)

1. Simple hypertrophy of the placenta seldom causes the death of the foetus.
2. Placental atrophy is a secondary alteration.
3. In the congested placenta the blood comes from the child.
4. Infiltration of blood and apoplexy are the most common diseases of the placenta, and the transformations which the extravasated blood undergoes and causes in the textures are a frequent cause of error.
5. Inflammation of the placenta is not proved.
6. The alteration called ossification of the placenta does not deserve that name.
7. Scirrhus, cerebriform cancer, and tubercles have never yet been met with in the placenta.
8. Serous cysts are not developed in that part of the envelopes of the ovum.

## FACULTY OF MEDICINE.

## LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

An obstacle to the freedom of the venous circulation causes a gradual distention of the capillaries, enlargement of their walls, and, subsequently, the accidental production of an anatomical condition which Mr. Milne Edwards has shown to be natural to some animals belonging to the inferior classes, *i. e.*, a direct communication between the cavity of the venous capillaries and the neighbouring cellular areolæ. Even thus enlarged the minute orifices with which the venous parietes are perforated cannot permit the passage of any but the thinnest part of the blood, *viz.*, its serum, and that only with a small quantity of its albumen. In the anasarous effusions we find, therefore, only water, some albumen, and salts, but never any globules or fibrin. When fibrin is detected in these fluids it certainly has not oozed through the vascular walls, but has been produced *in loco* by inflammatory action. As to globules—they cannot escape from the vessels without laceration of the capillaries.

We mentioned in our last lecture that serous effusions might result from another cause—a change in the natural composition of the blood: only one sort of chemical alteration can produce them, *viz.*, diminution of the albumen; this diminution should not be considered as the consequence, but as the cause, of anasarca and dropsy—a proposition which is clearly demonstrated by the fact that no decrease of the albumen is ever noticed when the effusion has been occasioned only by an obstacle to the venous circulation, such as a tumour, for instance. A decrease of the globules does not bring on dropsy; we have seen immense numbers of chlorotic patients, and have never met with any real serous effusions in uncomplicated cases. Abundant hemorrhage

sometimes causes dropsy; but it should be noticed that at first hemorrhage produces only loss of serum and globuline, and that the albumen of the blood is decreased only after repeated and important losses. Plethora has been said to occasion dropsical deposits, but we do not believe the assertion to be founded upon fact.

All dropsies may, therefore, be referred to these two causes: an impediment to the circulation, or a change in the composition of the blood.

This general rule may be illustrated by the analysis of the mechanism of effusions occurring in ague, in pregnancy, and in granular disease of the kidney. Dropsy occurs sometimes, although rarely, after exposure to cold. The following instance is interesting in many respects:—A man, who was perspiring profusely in bed, was suddenly awoken by a quantity of cold water thrown upon him; he arose and, undressed as he was, pursued his aggressor. A few days after this circumstance he was admitted into our wards at the Hospital of La Charité, labouring under ascites and anasarca. On testing the urine, we found it contained a large proportion of albumen, which gradually diminished, and absorption of the effusion was shortly afterwards complete. In this case, therefore, it is not, as would have been formerly said, repercussion of perspiration which had occasioned the anasarca, but an acute modification of the kidney, by which that organ was rendered incapable of preventing the albumen of the blood from escaping with the urine. This form of dropsy from exposure to cold is said to be endemic in the East Indies, where oppressive days are followed by very cool nights; it is probable that the cause is the same. The subject appears to us, at any rate, deserving of investigation. After scarlatina, many patients present dropsical effusions, the urine also contains albumen in notable proportions.

The other secreted fluids differ from the blood more than the preceding, because they are separated by a special organ of elaboration. The adipose secretion presents but little interest to us. From the skin, perspiration and sebaceous matter are eliminated, and of the alterations of the latter we have nothing to say. The perspiratory fluid is prepared by a particular glandular apparatus placed in the deeper layers of the dermis, the excretory duct being perfectly visible, and now well known from the researches of modern anatomists. Perspiration differs widely from the serum of the blood—the latter is alkaline, the former acid, in general. It consists of water containing, in a dissolved state, salts, a badly defined animal matter, and lactic acid. The quantity of chlorides is particularly notable. Increase of temperature of the body is productive of perspiration, and although in disease when great heat of skin is present the equilibrium of temperature is generally re-established by a sudoral crisis, still in many cases this does not occur, and the skin returns to its natural standard of heat without the production of moisture. In some cases the increase of perspiration is the only morbid symptom, as in the epidemic form of miliaria; in some maladies the secretion is much decreased; but the study of these disorders would lead us away from our subject into semiology. The naturally acid perspiration may, when very abundant, become neutral, but we have never seen it alkaline. When the test paper has shown an alkaline reaction we have always found it had been placed in contact with sebaceous matter. In all diseases we have observed it to remain acid. Some authors hold, however, an opposite opinion. We conceive it is not impossible that ammoniacal products may be eliminated by the skin; in this respect experimental physiology demonstrates the substitution of the action of one organ to that of another in a manner truly remarkable. Thus, M. Bernard, having removed the kidneys in several dogs, was surprised not to find urea in the blood except during the last moments of life; but in other dogs, who presented a gastric fistula, the kidneys having been extracted, Dr. Bernard observed that an enormous amount of ammoniacal salts was excreted from the stomach. We may, therefore, conceive, although we have not observed it, that a similar phenomenon may accidentally take place in the cutaneous secretion. This subject is of con-



siderable importance, because a change of reaction of our fluids from acid to alkaline, or *vice versa*, is much rarer than has been supposed, and usually indicates some profound disturbance of the functions. Anselmino, quoted by Berzélius, asserts, that having analysed the perspiration of a gouty subject, he found it to contain ammonia, where it had been collected during the attacks. The same author, in a case of acute rheumatism, detected in its composition albumen, by which it was rendered coagulable. But this fact is of too important a nature to be lightly admitted; it must receive from chemical research further confirmation.

Mucus secreted by the lining membranes of our viscera may also be increased or diminished in quantity by disease; thus, in fever, we observe the mouth to be in a state of dryness due to the temporary suppression of the mucus, and in the various fluxes we witness its sometimes enormous augmentation. The changes of composition of the blood exert no demonstrated influence on mucous discharges; and yet, as they are chiefly observed in weak and lymphatic subjects, we must suppose that alterations of the blood cannot be altogether without action upon their producing causes; but the special corresponding change of constitution of the circulating fluid is not known to us. In its healthy state mucus is composed of a colourless, transparent acid, slimy fluid, which resembles the perspiratory secretion in some respects, and differs from it by its acidity and viscid consistency; this liquid is occasionally the only component of mucus; in general, however, epithelial remains are visible, and often corpuscles, about the existence of which in the healthy secretion there is some difference of opinion. We believe, for our part, that these globules are always the result of morbid change. But perfectly healthy mucus is very seldom submitted to our observation, and the facility and promptness with which these globules are produced by the slightest hyperemia accounts for their frequency; it also explains the ready transformation of mucus into pus, with the globules of which these corpuscles are identical. We find these in the expectoration of bronchitis, in the discharge of coryza, and in the morning on the tongue of many persons in apparent health. The liquids which flow from mucous membranes sometimes bear a close resemblance to the serum of the blood, but they differ materially from it by their acidity and the absence of albumen. In cholera the white dejections are characteristic; they have been compared not inaptly to water containing in suspension grains of rice. It has been said that this fluid was constituted by the serum of the blood loaded with altered albumen. During the course of last summer we had an opportunity of observing several cases of cholera, and did not neglect that occasion of putting the assertion to the proof. We examined carefully these dejections, and by no reagent could we possibly detect the presence of albumen. The microscope showed a transparent, colourless fluid, holding in suspension myriads of globules, some granular, others with nuclei. False membranes, consisting of pure fibrin, are also exuded on mucous surfaces, where they seldom become organized—an occurrence we know to be common in serous cavities. In the stomach we observe a special secretion without any special organ provided for its production, viz., the gastric juice; it is chiefly composed of animal matter and an acid principle. In disease this fluid may be changed in its composition and in its quantity, and these alterations are, doubtless, productive of modification in the accomplishment of digestion; but this is a subject entirely new, which has not hitherto been sufficiently investigated.

We now come to the alteration of liquids furnished by glands. Of tears we have nothing to say, except that they give us a further proof of the influence of the nervous system on secretion. They sometimes form concretions, in which alkaline phosphates and carbonates are found; peroxide of iron has also been met with, and a fatty substance which we suspect to depend upon the accidental addition of sebaceous matter.

Saliva is known to increase from desire for food, and also from repugnancy; pathologically, we know the influence exercised upon the salivary secretion by inflammations of the mouth; and in hysteria a pe-

culiar kind of nervous ptyalism has also been noticed; during pregnancy we have observed salivation to last throughout its duration; and lastly, idiopathic increase of saliva is not very uncommon from nervous influence. We again observe its diminution, or even total suppression: during febrile excitement the mouth is parched, and also in certain morbid conditions of the stomach; also in some very abundant fluxes, such as a considerable increase of the urinary secretion. Can the saliva become acid? Burdach asserts that it happens in hysteria and hypochondriasis; but our researches do not confirm the fact. We believe that wherever acidity has been noticed, it was due to the mixture of the saliva with the buccal mucus, which is acid. Saliva consists of water, salts, ptyalin, and a badly-defined organic matter. It has been said, that, when saliva increases in quantity from nervous influence, it contains less organic matter, more water and more salts (Burdach). The same author asserts, that when salivation results from inflammation of the mouth, the fluid contains more organic matter, less water and salts; the same composition is observed when the flow of saliva results from the introduction into the mouth of very stimulating substances. In the same person, alternately submitted to a debilitating and stimulating regimen, the saliva was found to vary in specific weight: the saliva being twice as heavy in the latter as in the former case (Mitcherlich).

Concretions are observed in the saliva; the quantity of earthy salts they contain is enormous, compared to those found in the calculi of other fluids.

The pancreas has been called the abdominal salivary gland. Of its functions we know little, and nothing of the influence of disease on the changes of its secretion. Even the healthy composition of the latter is not accurately ascertained. Its calculi are formed of phosphate and carbonate of lime.

Bile may, under morbid influences, be very much increased in quantity, and form a true flux. A shock on the nervous system has been known to produce it suddenly; and it is frequently the consequence of duodenal irritation. Nervous influence may also arrest the secretion.

What is the formation of the bile? Is it merely an excretory fluid, or does it contribute to the accomplishment of digestion? These important questions have not yet received a complete solution. M. Blondelot, in several dogs, after dividing the ductus choledichus, allowed the hepatic secretion to flow outside the abdomen, without ever passing again into the intestine. The animals lived, and digested perfectly. In icteric patients, when no complication of intestinal or gastric irritation is present, the digestive functions continue unimpaired. We may, therefore, entertain a doubt as to the utility of the bile in digestion. The differences of colour to be observed in bile are numerous and well known to you; not so its varieties of composition, about which we cannot well show too much humility. Thénard, Berzélius, Tiedemann, Gmelin—the greatest names in chemical science—have all examined bile, and each has furnished us in turn with a different analysis of it. Thénard is struck with the presence of what he calls biliary resin; Berzélius, of bilin; and Marcet, of choleine. All have, besides, ascertained the existence of cholestérine, albumen, and more or less numerous salts. In *foie gras*, M. Thénard asserts he has found the bile to contain an enormous amount of albumen; but the fact requires confirmation. Of biliary calculi we know four varieties:—1. The yellow concretion, entirely formed of colouring matter. 2. The black, formed of colouring matter also: this calculus affects the mural (mulberry) shape. 3. The cholestérine calculus, which is always crystallised. And 4. The saline concretion, formed of carbonate and phosphate of lime.

Urine is changed in its composition and modified in its quantity by an infinite number of circumstances, and these changes are compatible with health; hence you may judge how difficult it is to appreciate the influence of disease on the amount and quality of the secretion. Urine is composed of a large quantity of water, containing, in a dissolved state, urea, uric and lactic acids, one or more colouring matters, badly defined organic substances,

and a large and variable amount of salts. All these salts are dissolved; urine should, therefore, be limpid, or at most contain a very little quantity of mucus in suspension. We shall first examine the modifications of quantity of the renal secretion; 2. The changes experienced during disease by its elements; 3. The alterations due to the admixture of new principles with its usual components.

It is very difficult to establish a correct average of the quantity of urine evacuated in one day during health, on account of the number of causes which may occasion an increase or a diminution; Prout, however, places the average at 900 or 1,000 grammes in twenty-four hours. The minimum appears to be 600 grammes, the maximum 1,500 or 1,600. The pathological increase of the secretion is very rarely true; in diabetes more urine is excreted than in health, but the patient suffers from thirst, and drinks a great deal: who can say if the augmentation of urine is due to the disease or to the drink? In some cases of consumption M. Rayer has noticed a great abundance of urine. The diminution is more frequently the result of disease than the augmentation; thus, in febrile excitement, the urine is secreted in smaller quantity; also in some forms of dropsy, particularly those caused by hepatic disease; in very abundant diaphoresis, and in certain fluxes (cholera, &c.) urine may be suppressed. As to those instances in which the renal secretion is reported to have been arrested for a considerable time without any damage to health, we totally disbelieve them. A. Urea constantly exists in urine, and does not proceed from the food, but from the chemical decomposition of the azotised portions of our organs; it has been found in the urine of animals in a state of prolonged abstinence, and in that of patients who for weeks had not touched food. Berzélius estimates its quantity at  $\frac{3.0}{1000}$ : this average we think too high. A very remarkable correlation exists between the globules in the blood and the urea in urine; the causes which influence the increase or diminution of the former also regulate the augmentation and decrease of the latter. In plethora, therefore, urea will be found abundantly in the urine; it will be very scanty in that of anemic patients. In proportion with the progress of anemia in chronic diseases does the urea diminish in the urine. Fever does not cause an increase of the quantity of urea excreted by the kidneys; but, the amount of water in the urine being diminished, it contains relatively more urea than in healthy subjects. We have mentioned the decrease of urea in chronic diseases, in anemia, in chlorosis. In neuroses, particularly those attended with fits, and during the latter, the urine becomes pale as water. Is it due to a sudden increase of the water, or to a sudden diminution of the solid elements of urine? To this question we cannot give a positive and satisfactory answer. In granular kidney, when albumen passes into the urine, urea diminishes considerably. In chronic hepatitis, Dumas and Prévost have asserted that urea decreases. It is true, but is referrible to the anemia produced by all chronic affections. In diabetes mellitus, we have always found urea present in its normal quantities. When in alkaline urine you find a diminution of urea, do not ascribe the fact to disease, but to the decomposition of the urea into carbonate of ammonia. It is not, however, absolutely impossible to admit that in some very rare cases alkaline urine may be secreted by the kidney; but do not admit it without being well guarded against any chance of error. B. Uric acid forms only one part in 1,000 of urine in man. It increases under the same circumstances as urea. Its quantity is very much influenced by the kind of food ingested; an order of causes which does not in the least affect urea. Animal food increases a great deal the amount of uric acid. In gravel, pure uric acid is precipitated in the bladder, and in gout we find it deposited around the joints; in gout it is also increased in the urine. It is said that at the beginning of the attack of gout the secretion of uric acid is suddenly suspended in the kidney, and that none is found in the urine. This assertion tallies too well with theoretical views on gout, not to be received with the greatest re-



serve. Uric acid is also found combined with ammonia. Thus the essential character of febrile urine is due to the presence of the acid urate of ammonia; this salt gives to it a peculiar aspect, which we will refer to when treating of semeiology. However, in proportion as fever becomes more chronic and the patient more debilitated, the lithate of ammonia diminishes in quantity. In cirrhosis, the urate of ammonia can be detected in abundance in the urine; and Chélin asserts that the exhibition of colchicum causes a return of lithic acid in the urine of gouty subjects. Lithic acid diminishes in cases of neuroses, and during the rigor of intermittent fever; but in diabetes we have not found any appreciable decrease. C. Of the lactic acid of urine we know nothing. D. The colouring matter and the mucus contained in the renal secretion may also increase or diminish in disease. E. The state of science is not fixed on the changes of proportion produced by disease in the saline elements of urine. They are usually dissolved; but chemical actions may proceed in the bladder and cause their deposition. Thus when urine is alkaline, its phosphates must be precipitated; when it is acid, uric acid and urates are thrown off. Healthy urine should contain 900 parts of water in 1,000. The influence of drink upon this water is all-powerful; and the increase or diminution of the water causes such variations in the aspect of urine, its solid components remaining the same, that we are induced to advise you never to judge of the composition of urine by its aspect.

D. M'CARTHY, D.M.P.

#### REPORTS OF THE PATHOLOGICAL SOCIETY OF LONDON.

##### RUPTURED UTERUS.

Dr. Lever presented the uterus of a woman, aged twenty-eight, who had given birth to four children at three confinements, the first being a twin-labour, both the children males, in both of which there was an arrest of development of the sexual organs. Although in the daily expectation of her confinement, she had busied herself about her domestic concerns, and at eleven A.M. on the Friday she expressed herself as feeling very tight, and thought she should be confined towards evening. Soon after three o'clock she felt a violent foetal movement, followed by pain and a sensation of faintness. She was seen at half-past three, and found sitting in a chair, supported by an attendant, gasping for breath, her face pallid, somewhat livid, nostrils dilated, eyes staring, a cold, clammy perspiration bedewing the body, and her pulse scarcely perceptible. A vaginal examination found the os uteri closed. She rallied under the administration of stimulants, and at eight P.M. a second vaginal examination detected the os uteri as large as a crown piece: there were no labour pains, but she complained of a little constant stomach-ache. At ten the pulse was small, and scarcely perceptible; the presence of fluid in the peritoneal cavity was plainly detected. The quantity of liquor amnii was very great, and the uterus felt exceedingly tense. She was delivered by artificial assistance, and died at half-past eight A.M. The child was a male: its sexual organs presented the same deformity as those of the twins. On examination, thirty-two hours after death, the surface of the body was very pale. On an abdominal section, a large quantity of fluid and coagulated blood, estimated at between five and six pints, was found in the peritoneal cavity. All the viscera of the thorax and abdomen were pale, but healthy. The uterus was large, soft, and pulpy. On the fundus there was found a laceration of the peritoneal coat, passing transversely, exposing the proper tissue, but not implicating it. On the posterior part, and to the right side, of the body of the viscus, there was another laceration, of zigzag form, implicating the superficial uterine fibres, and exposing a large vein, from which, doubtless, the greater portion of the blood found in the peritoneal cavity had proceeded.

##### RARE UTERINE DISEASE.

By Dr. F. Ramsbotham.

Three similar are recorded in English medical

literature: one, by the late Dr. John Clarke, in the third volume of the "Transactions" of a Society for the Improvement of Medical and Surgical Knowledge; another, by Mr. Coley, late of Bridgnorth, in vol. iii. of "The Provincial Medical and Surgical Transactions"; and the third, reported by Dr. Goode, "Diseases of Women," his fourteenth case: the same case was also given by Dr. F. Ramsbotham's father, in his "Practical Observations in Midwifery."

The disease consists in ulceration of the whole or chief part of the lining membrane of the uterus, under which the parietes of the organ become softened in structure, much as they do in pregnancy, and generally irregularly thinned in substance, while the cavity is considerably dilated, and contains coagula, unhealthy, foetid pus, and portions of shreddy fibrin, which adhere with greater or less tenacity to the internal surface. In the specimen exhibited, the cavity would hold a large orange; in his father's case it would have contained a foetal head at birth. In the instance before the society, although the principal part of the lining membrane of the uterus is destroyed by the ulcerative process, very little of the fibrous substance is eaten away, and the parietes have consequently not lost much of their original thickness; in his father's case, at some points near the cervix, little was left besides the peritoneal covering; and in Mr. Coley's case the fibrous portion was so completely disorganized that it was not thicker than an ox's bladder; in some places it was altogether destroyed by ulceration, and at one spot it was so thin that the peritoneal coat gave way on the application of slight pressure, when a quantity, to the amount of three pints, of a dark-coloured, offensive fluid escaped into the abdomen. At other parts, as well as at the spot where the laceration took place, the fibrous structure was quite destroyed, and, on being divided, the parietes of the uterus collapsed like moist wash-leather, its average thickness being reduced to the eighth of an inch. In another preparation of the same disease, exhibited by Dr. Ramsbotham to the society, which had been in spirits many years, and a drawing of which is given in his published lecture, already referred to the ulceration affected the whole mucous lining, and had even extended through the peritoneal covering during life; for there is a jagged, sloughy, or ulcerated aperture at the fundus uteri, through which the tips of three fingers could be passed with ease, no part of the parietes being thicker than the eighth of an inch; and the same kind of aperture was found by Dr. J. Clarke in the case which he has detailed.

This disease (Dr. Ramsbotham observed) is interesting in three points of view: first, on account of its rarity; secondly, because in three out of the four cases it was mistaken for pregnancy; and, thirdly, from its fatal tendency. It is unlike the more ordinary cases (although they are also very rare) that have been reported under the term hydrometra, such as that given by Dr. A. T. Thomson, in the thirteenth volume of the "Medico-Chirurgical Transactions," as well as others noticed by Boivin and Dugès; because in them the internal surface of the uterus had undergone no perceptible morbid change, and because the os uteri was obliterated by adhesion; in Dr. Thomson's so perfectly, that, although its situation could be traced from the vagina, yet, internally, it was no more perceptible than if it had never existed. In the cases under consideration, on the contrary, the os uteri was pervious, though in Mr. Coley's, indeed, it was plugged by a tough mucus, resembling that secreted in pregnancy.

The case which was the immediate cause of this affection of the uterus being brought before the society, offered another ground of considerable importance, because it was complicated with another rare disease, mollities ossium, of about twelve years' standing, during which time the patient had lost eleven inches in height: being, at her marriage, five feet high, when she died she only measured four feet one inch. She was married sixteen years ago, in her twentieth year, and during the first four years and a half had three living children; she then had a dead child, after a very severe labour; shortly before which pregnancy, the disease would appear to have commenced; another child was de-

livered by craniotomy; and in her last pregnancy, six years ago, premature labour was induced at five months, and the foetus, though so small, passed with difficulty. At the time of her death, the pelvis had become so highly contracted that from the promontory of the sacrum to the symphysis pubis it measured only one inch and three-eighths; on the right side, in the same direction, one inch; on the left side, three-quarters of an inch. The right oblique measurement was three inches; left, three and a quarter; transverse diameter, three; depth from brim to tuber ischii, on right side, three inches and five-eighths; left, three inches; space between spinous processes of ilia, nine inches; between tubera ischiorum, three inches. The lower part of the spinal column was so much thrust downwards and forwards that the upper part of the fourth lumbar vertebra was opposite the symphysis pubis, and the sacrum was exceedingly bent. Thus the pelvis, during the last eleven years and a half of her life, had become diminished from at least three inches or more, in the conjugate diameter at the brim, affording a space sufficient to allow the passage of a live child at full time, to the small size just noted. The vertebræ, bones of the pelvis, and head of the femur were so soft as to be easily cut with a cartilage knife, of a dark colour, and spongy appearance, with a thin layer of osseous matter externally; a quantity of thick oily matter oozed from their sections when scraped. The thickness of the pelvic bones was much diminished.

The following account is furnished by Dr. John Hall Davis:—"Two years ago she had sustained a severe loss of blood, both fluid and clotted, from the uterus, and was then considered in danger, but nothing like a foetus came away, as far as could be learned. Up to October, in last year, she menstruated with perfect regularity; the function then ceased until April of this year, when she menstruated once, since which there has been no catamenial appearance. She, therefore, thought herself pregnant, especially as she further had enlargement of the breasts, with a secretion of milk in them, morning sickness, enlargement of the abdomen, and a sensation as though she had quickened. I visited her first," writes Dr. Davis, "on October the 24th; I could distinguish no well-circumscribed solid enlargement of the uterus, which one might expect to have found at five and a half or six months of pregnancy, and especially with an extremely contracted pelvic brim. The application of the stethoscope elicited no sign of pregnancy; there was no varicose state of the veins, which she had had in her former pregnancies; the breasts were enlarged, and contained a milky fluid, a state in which they had not been for six years, since her last pregnancy; but this could not be considered of itself of great value.

"*Examination per vaginam.*—The conjugate measurement of the pelvic brim, as well as could be taken with the outlet of the pelvis, also a good deal contracted, did not give more than an inch and a half, if so much, and there was perceptibly less space on either side of the sacral promontory. The mouth of the uterus was found open, admitting the tip of the index finger; the part of the uterus above, and immediately adjoining the vaginal attachment, could not be felt, owing to the narrowness of the brim; so that no idea could be formed as to the degree of uterine enlargement or development by the vaginal examination. I now passed in a staff, or bougie, to measure the length of the uterine cavity, and it proved to be five inches and a half, showing an expanded cavity to a considerable extent. Withdrawing the bougie two inches, that it might not press against the fundus, I left it *in situ* for five hours, secured by tapes, the bladder having been first relieved. At the end of that time (ergot of known good quality having also been given in the interval) no action had been induced, and the instrument was removed. A sponge tent was then introduced within the uterine orifice, and the vagina was plugged with sponge. This was withdrawn on the following night. Some bearing-down pain had been occasioned, but that ceased; on the removal of the plug, some stiffish mucus, and a slight sanguineous discharge, blended with mucus, came away. During the following day she got up, and sat as usual in her chair, thinking that



her child would be born on the seventh day, as on the previous occasion.

"On Friday, the 30th, Dr. F. Ramsbotham saw her with me and her ordinary medical attendant: his opinion, that she was not pregnant, although the os uteri gave the sensation of pregnancy to the finger, was founded partly on the result of what had been done, supposing premature labour would have followed the means used, and also upon the information, of a negative kind, furnished by the taxis to the hypogastrium, and the absence of varicose veins, which she had had in all her former pregnancies. He found the same length of cavity which I had done, and concluded that it was a case of extension of the uterine parietes and cavity, attended by ulceration of the lining membrane of the uterus, with pus and dark grumous blood for contents, a material of this kind having come away in his catheter.

"On the following morning she was seized with shivering, and at three P.M. with a severe flooding. I saw her at four P.M., plugged the vagina, and the flooding was arrested. About seven the plug was removed. A profuse action of the bowels set in, owing to about two drachms of castor-oil, which she had taken in the morning; and she speedily became prostrate, with cold clammy skin and dyspnoea; the pulse scarcely perceptible. Her usual medical attendant remained with her during the night, plying her with beef-tea and small quantities of brandy-and-water; and about every two or three hours exhibiting the only form of opium she could take—the compound tincture of camphor. In the morning she had rallied; her pulse was good; the temperature of the skin natural; but the breathing was very difficult, which she attributed to the dense fog of that day; there was some red discharge, mixed with fibrinous matter, evacuated during that day.

"On Monday the napkins were very little coloured, and afterwards, not at all; but she gradually suffered more and more in her breathing. This continued during Tuesday; she became worse at night, and died on Wednesday morning.

"For upwards of six years this poor creature, in consequence of the osseous deformity, had been unable to abduct the thigh-bones in the least. She had not been able to get into bed herself; her husband had lifted her in and about during the same period; she had required to be assisted even in making any change of position in her bed. She could not lie on either side without great aggravation of a dyspnoea and cough, which she had had ever since the deformity of her chest became so extreme; her position, therefore, when recumbent, had been constantly on her back. She could move herself along a plane surface on crutches, and went up and down stairs in a sitting posture, shifting herself thus from step to step.

"She was very intelligent, and of an amiable disposition. She has greatly assisted her husband in some drawings in which he has been engaged. Her legs and arms did not partake of the deformity, probably from not having been subjected to the same pressure as the spine and pelvis; but they were much attenuated."

#### ANEURISM OF THE AORTA BURSTING INTO THE ŒSOPHAGUS.

By Dr. Boyd.

The specimen produced was taken from a patient, aged forty-five, who was brought into the Marylebone Infirmary, suffering from emphysema of the lungs, and who died four days after admission, being too ill at the time of admission to be subjected to a minute examination. The symptoms that came on upon the morning of his death were nausea and hacking cough, followed by the ejection of about half a pint of blood. He died within ten minutes after the escape of the blood. He had been in bad health for four years, and had suffered from cough for several winters. The body was examined twenty-four hours after death. Old pleuritic adhesions were observed on both sides of the thorax; the lungs emphysematous, the lower lobe of the left being infiltrated with bloody serum. The heart, larger than natural, weighed thirteen ounces; its valves were healthy; and beneath the inner membrane of the aorta were specks of steato-

matous deposit, more abundant a little distance from the heart than elsewhere. At the commencement of the arch were two shallow pouches, the larger about three quarters of an inch in diameter; the other below, about half that size. At the transverse portion of the arch there was a deep aneurismal pouch, filled with fibrin, one inch and a half in diameter, and firmly attached to the front of the trachea. About two inches further on, at the back part of the descending portion of the aorta, was a large aneurism, four inches in diameter, formed of layers of fibrin, resting posteriorly on the bodies of three of the dorsal vertebrae, which had undergone considerable absorption. The coats of the aorta were deficient in two-thirds of the large aneurismal sac. The œsophagus was attached to the aneurism posteriorly. Its mucous membrane was ulcerated on the right and left side; the ulcer, in the latter situation, had involved the muscular coats of the canal, and communicated with the interior of the aneurism by an oblique sinus, more than an inch in length, directed downwards and outwards. The ulcer was a quarter of an inch in diameter. The stomach was filled with a clot of blood, which extended about two inches in each direction into the œsophagus and duodenum. The clot weighed thirty-four ounces. The kidneys were atrophied, very pale, and slightly granular.

#### FIBROUS TUMOUR OF THE LOWER JAW.

By Mr. Adams.

The preparation, accompanied with a drawing by Mr. Gowland, was exhibited. The tumour, with the portion of jaw implicated in the disease, was removed by Mr. Adams from a healthy man, aged twenty-four, who first complained of toothache five or six years ago, for the relief of which a molar tooth was extracted at the time. About twelve months afterwards a substance was observed growing from the part originally occupied by the tooth, and which continued to increase in size until two years ago, when he placed himself under the care of a practitioner in the country, who removed the tumour by the application of the canter and caustic. It soon, however, grew again, and continued to increase until his admission into the London Hospital, two months ago. The tumour had then attained the size of a small orange, and appeared to spring up between the plates of the bone close to its base, the plates being separated so that there was a considerable bulge externally, and protrusion into the mouth, in the form of a large lobulated mass, highly vascular. It occupied the left side of the lower jaw, from near the symphysis to the angle. The man was well in ten days after the operation. The tumour, on section, was found to be of a simple epuloid character, and had evidently sprung from the cancelli near the base of the jaw; it presented a beautifully striated appearance, the striæ passing in a vertical direction. Its free surface was impressed with the crowns of the molar teeth of the upper jaw. It had gradually thinned out the lamellæ of the bone, which in some parts was reduced to a mere shell. The fibrous arrangement of the tumour was well represented in the drawing.

#### MICROSCOPICAL AND CHEMICAL EXAMINATION OF A KIDNEY AFFECTED WITH MORBUS BRIGHII.

By Dr. George Johnson.

The kidney examined was one exhibited by the President. It was larger than natural, and of pale colour. On examining sections under the microscope, there were seen many opaque dark patches, which, on a hasty examination, appeared to be confused masses of granules and globules. On a more careful examination of very thin sections, these patches were found to consist of convoluted urinary tubes, filled, distended, and, in many cases ruptured, by an accumulation of globules in their interior. Several of these sections were digested for some hours in ether, and again submitted to a microscopical examination, when it was found that the globules had entirely disappeared; and the patches, previously opaque and dark, had now become transparent and clear. The appearance of these globules under the microscope would have been sufficient to satisfy Dr. Johnson of their oily nature. The result of digestion in ether confirmed

him in his opinion, and may perhaps convince some who would not be satisfied with a mere microscopical examination. One hundred grains of this kidney were dried over a vapour-bath: the dried residue weighed thirty-one grains and a half. This was digested in ether, on evaporation of which,  $3\frac{2}{10}$  grains of fatty matter remained. Was there any other deposit or accumulation in this kidney? None that could be discovered. There were no products of inflammation in those portions of the gland which contained no oil; some of the tubes appeared quite healthy, while others seemed to be shrunk and atrophied, probably in consequence of the destructive pressure which the dilated urinary tubes had exerted upon the surrounding bloodvessels. We have here, then, an accumulation of globules in the tubes and epithelium of the kidney, producing distention and even rupture of the tubes, these globules possessing the refractive power and the general appearance of oil-globules, and being dissolved by ether.

#### EXTENSIVE EXTRAVASATION OF BLOOD IN THE BRAIN.

By Dr. B. Jones.

Dr. Bence Jones exhibited the brain of a woman, aged fifty-four, who had died of apoplexy. Blood was observed all over the surface of the visceral arachnoid, not quite so much on the upper as on the lower part, also beneath the arachnoid as well as between and beneath the convolutions. In the post-mortem examination the heart was also observed to be larger than natural, with slight atheromatous deposit at the root of the aorta, and on the mitral valve. The attack of apoplexy was quite sudden, the patient having left St. George's Hospital convalescent from some uterine affection, and was readmitted on the evening of the same day, suffering from an attack of apoplexy; the symptoms being excessive restlessness, little or no pulse, blanched and cold extremities. The reaction was very slight, as she sank twenty-two hours after the attack, and twenty hours after admission. (To be continued.)

#### TO CORRESPONDENTS.

*THE MEDICAL TIMES* is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

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Mr. R. F. Snape has been recently elected one of the honorary surgeons of the Bolton Dispensary.

An extraordinary press of interesting matter will compel us to defer our usual answers to correspondents until next week.

We are compelled by press of matter to defer the insertion of Mr. Brooke's case of Fracture of the Femur, the Memorial of the College of Physicians, Dr. Searle's Letter on the Action of Ether, and several other interesting communications until the next number.

Communications have been received from Dr. Clay, Dr. Brown, and Mr. Waite, which are unavoidably deferred to next week.

APOTHECARIES' HALL.—Gentlemen admitted members Dec. 24:—Joshua Lever, Henry Turner Laue Rooke, Richard Budd Painter, Robert Allen, Francis Sibery, and James Edmund Clutterbuck.



## THE MEDICAL TIMES.

SATURDAY, JANUARY 9, 1847.

## HYDROPATHY.

"Prodire tenus, si non datur ultra."—HORACE.

THIS motto will tell our readers, that, with the present article, we conclude our observations on the Cold-water System. Before drawing our inferences, however, we have a few more proofs to offer, how far from novel the present hydropathic practice is.

Mothers and nurses have lately been astounded at the suggestion of dipping newborn infants in cold water, and of regularly performing the said immersion every morning of their lives. That the custom is as dangerous and ridiculous as it well can be, every man in his right senses will doubtless allow; but, for all this, it is nothing new. If there were ever such a being as Achilles, or such a mundane river as the Styx, it is exceedingly probable that the first instance of the folly we speak of was manifested by the maternal parent of the said Achilles plunging him into the cold stream to tighten and toughen his skin. However this may be, we know that there is a country called Russia, and that its inhabitants make a common practice of dipping their newborn children into cold water, to given them strength and vigour. We know, also, that about one-fourth of the poor little wretches so exposed perish in consequence. Vigne, in his "Travels in Kashmir," quoted in "Graves' Clinical Medicine," p. 745, note, says—"No one visits Simla without descending to Annadale, to pay a rupi for seeing a *mother put her child to sleep*, by laying it so that a *small stream of water is allowed to pour for two or three hours upon the back of its head*. The natives say, that it is a healthy practice; that that their fathers did so before them; and they still continue to do so, although they admit that many of their children die under such treatment."

At p. 129 *et seq.* of Sir John Floyer's work, we have the following account of how our forefathers, in this country, used to treat children of a year old to cure rickets. "Extreme cold springs," he says, "were sought, into which some dip them twice or thrice, over head and ears, with their shifts and nightcaps on, giving them a little time to breathe between each immersion. Others dip them no farther than the neck, because the water is apt to stop their breath, and dip their nightcaps thoroughly, and put them wet upon their heads. Others, out of tenderness to the child, or in regard to the child's weakness, content themselves with dipping only the shirt and nightcap in water, and put them wet upon him. As soon as the children are dipt, they, with their wet clothes on, are wrapt up in warm blankets, over their head and whole body, and immediately put to bed, which instantly puts them into a violent sweat. In this condition they lie all night, till towards morning the clothes are taken off by degrees, so that

they may cool gradually, and in the morning they have dry shirts and headclothes put on."

Dyspepsia is a favourite subject with the cold-water quacks, and no doubt they have done some good, and earned plenty of money, by recommending their plan to men who have suffered the oppression due to over eating and drinking the good things of this life. But, in this said plan we owe nothing to Priessnitz or his followers. Long before any of them took to "doctoring," cold water was known to be useful in certain forms of dyspepsia, and was frequently recommended by the profession. We could quote scores of cases in proof, but we will quote only one, and challenge modern hydropathy to find its equal. It is recorded by Dr. John Bell, in "Duncan's Medical Commentaries," vol. xvi., pp. 386, 387:—

"Some years ago, a Lieutenant-Colonel in the service of the Duke of Wirtemberg was attacked with a violent headache, for which he could assign no cause. As the severity of the complaint deprived him of rest and prevented him from discharging his duty, he consulted many eminent medical men from whose prescriptions he derived little or no advantage. The operation of the *trepan* was even recommended and submitted to. Some violent febrile symptoms succeeded, but the wound at length healed favourably, though the pain still continued as before. Despairing of relief from medicines, he totally laid them aside, when he accidentally met with a person who undertook to relieve his complaint. The remedy recommended was of a very simple nature; but its efficacy was pronounced to be infallible, provided the patient would persevere for a certain time in the use of it. Willing to do anything that promised even an alleviation of so distressing a disorder, he undertook to *drink six quarts of spring water daily for three months*. He had, at first, no great faith in the remedy, but, as custom soon reconciled him to it, he persevered. He was the more induced to do this, on finding his complaint mitigated at the end of a few weeks. Within the time specified it was entirely removed, and, after having been upwards of eighteen months in a state which deprived him of all enjoyment of life, he has now been nearly three years free from any attack of his disorder."

There can be little doubt that the ailment had its origin in the digestive apparatus; and, as we before said, we should like to see the hydropathic quacks furnish a case and a cure equal to it!

They tell us they treat inflammations successfully by cold water. That many of them can distinguish between *inflammation* and *irritation*, or spasm, we are prepared to doubt, and to disprove if necessary. But, granting them all the vantage-ground they want, there is still nothing new in treating inflammation with cold water. Abdominal inflammation, as we know, is one of the severest and most rapidly fatal ailments of the acute kind we are liable to. A common practice, and an excellent one too, with us in such a case, is to leech the abdomen, and follow this by hot fomentations. But, amongst other like cases on record, four are narrated by

Mr. Smith, a surgeon of Kingussie, of abdominal inflammation successfully treated by cold water, within and without. They are to be found in the "Ed. Med. and Surg. Journal," vol. ix., pp. 287—299. One of them is so striking that we really must quote it.

The patient was "taken out of bed, naked from his waist downwards, and supported by two attendants, with his feet upon the floor (which was a damp earthen one) while several pailfuls of *cold* water were dashed upon his legs, thighs, loins, and abdomen. The first obvious effect of this treatment was upon the strength of the patient. At his first getting out of bed he was *totally unable to stand without support*; but, after the water was applied three or four times, *he could walk about the apartment alone*, and at last, when he saw a pailful of water aimed at him, *he sprung aside with great agility to avoid it*. Being questioned as to his feelings at this time, he said that the pain and sense of heat within him were gone, and, except in his legs and thighs, he had not felt cold since he left his bed." By drinking copiously of cold water, and having wet cloths continually applied to his abdomen, the man completely recovered.

At p. 446 of his article, Dr. Forbes advertises the case of a lady, lame from rheumatism, who was treated at a "hydropathic institution" (*Proh pudor!*), and "could walk a few steps, *immediately after leaving the cold bath*." He puts the marvellous part of it in italics, and then tells us he "can guarantee its faith." Is Dr. Forbes at enmity with his own profession, or is he only half-read in its literature? One of these must be, or he would never have quoted a case like the above, in praise of a "hydropathic institution," forgetful that the *legitimate practitioner* has put many and better such cases upon the pages of our periodical literature! In proof, we refer him to the one ourselves have recorded, and it is *only one, amongst many*, that are accessible to him.

To treat eruptive diseases by cold water, the hydropathic quacks affirm to be quite a novelty amongst them. Why, the practice is as old as the days of Mercurialis, who is said to have cured himself of some kidney affection by sitting with his back to the stream of the river Arnus, at Pisa; and who further recommends this sort of bathing in the coldest rivers, "when the blood is hot, when the skin is dry, or deformed by scurf, itch, or pustules. But to quote with more orthodoxy, and come nearer our own times, we can furnish proofs, legitimate and professional, how successfully the most formidable eruptive diseases have been treated by cold water. Sir John Floyer says (*Op. cit.*, p. 69), "in that low degree of leprosy in our northern climate, which we call *lepra Græcorum*, I have known the cold bath at Willow-bridge to have done much good. And for the scurvy, swimming in rivers is oft prescribed; and our country has found by experience that the cold water in Sutton-park cures all scabious affections.

It needs no great amount of pathological or practical knowledge to testify how dangerous,



in general, is the sudden suppression of active eruptions that have a defined course to run. We do not know whether the cold-water-men are rash enough to treat smallpox on their exclusive plan, but, even if so, we can prove that in this, also, there is no novelty. In 1779, Dr. Fothergill read before the Medical Society of London a communication from Dr. Wright, on the External Use of Cold Water in Smallpox. Its author observes—

"The maroon negroes in Jamaica, and some other nations on the coast of Guinea, have a custom of plastering the bodies of such of themselves as are taken ill of the smallpox, and especially during the eruptive fever, with wet clay, and with such good effects as induced me to try the cold bath.

"So soon as a person was seized with the variolous fever, whether from inoculations or otherwise, I caused an assistant to throw cold water on their naked bodies every four or six hours. The consequence was, a truce from the fever, from the headache, and pain in the back; a glow succeeded, with a kindly perspiration. The eruption, after this, was for the most part favourable. In the cases where the smallpox had made its appearance, and by its quantity, and the continuance of the fever, a confluent pock was apprehended, the cold bath not only abated the fever, but diminished the number of pustules, and the patients went through the disease easier. I do not recollect more than one person out of 500 treated in this manner, but what agreed perfectly well with the cold affusion."

As for the treatment of fevers, simple and complicated, by the cold bath, and drinking cold water, it originated with Hippocrates, and has never been out of fashion to this day with the profession. Galen, Oribasius, and nearly all the old writers, commend it without scruple. Vesputius tells us that the savage tribes of America used to cure their fevers by immersing themselves, when the complaint was at its height, in cold water, and afterwards running about until they became hot and sleepy. In our own country, and nearly in our own times, the treatment of fever by cold water found an able investigator and advocate in the accomplished Currie, who may fairly be said to have treated the subject in a manner that left little room for improvement.

Cold-water dressing for burns, scalds, and ulcers, the hydropathic quacks would fain make us believe is a suggestion of theirs. It has been known to, and practised by, the profession for half a century! Our space will not permit us to quote further; we must, therefore, be content to refer those of our readers who may be interested on the subject of cold-water dressing to a striking case published by Dr. Kinglake in the "Med. and Phys. Journal," vol. xvi., p. 17; to others, by Dr. Evans, of Ketly, in the same journal, vol. xvi., p. 527, 529; to another, most singular one, at p. 465 of the same work; and to others, by Mr. Ferguson, vol. vi., p. 19, 21.

We think we have fulfilled one of the intentions of these articles, *viz.*, to prove that modern hydropathy has nothing whatever of novelty in it; that in its excellencies, its extra-

vagancies, its varied applications, its good effects, and its bad ones, it has been anticipated by the legitimate profession in all ages! There is nothing of oddity, absurdity, killing, or curing, in it, that has not got a predecessor in the pages of our own literature! We emphatically deny, then, that the hydropathic quacks have any genuine originality to boast of. As for the rustic Priessnitz having no access to the literature which speaks of these things, this access was by no means necessary to his acquaintance with them. Though originating with the profession, they soon became popular, for there was no Latinity to clothe, and no bottles or pill-boxes to hide, them. People saw what cold water did, and they told their neighbours of it, and these told others, and then popular tracts were written in its praise, and at last, as Dr. Forbes ought to have known, all the world knew of it! The very fact of Priessnitz's system having been anticipated in every part of it, is proof enough that it is a compound of imitations. And, indeed, if it were not, what is that to us, the profession! The fellow can tell us nothing that we have not known aforetime of cold water, can do nothing with it that our own brethren have not aforetime done; and what need we care whether he stole or borrowed it of us, or had it miraculously revealed to him in a dream! We care nothing about such idle trash, and can only express our surprise and sorrow that it should be panegyricized by a pen that might have done the profession better service. If Dr. Forbes wishes to show Priessnitz as a curiosity and a cure-all, we beg him to do so without offending the profession by eulogizing the quack as its contrast! If he wish to advertise and advocate hydropathic hotels and cold water, to the exclusion of the legitimate practitioner and his honourable calling, we cannot help thinking that it would be better, first, to cease to be identified with either! We feel assured, however, that he can in reality intend no such nonsense, and we hope hereafter to see him worthily engaged writing down what too many give him credit for having attempted to write up!

We should have thought that the many instances in which cold water has not only proved useless but injurious in the hands of those competent to employ it scientifically would have convinced Dr. Forbes that it never can be made a therapeutic system! To render it such has been adventured over and over again, in our own ranks, by "good men and true"; men honest, intellectual, and in all respects equal to the task, and yet the consequence has invariably been—failure. If such men were unsuccessful in their efforts, are better and more substantial ones likely to be made by a rude peasant? We marvel that any rational mind could entertain such an idea! In no single form of disease, in no set of diseases, has cold water been found a remedy constantly to be trusted, even when tried by the scrutiny and untiring investigation of zealous, conscientious, and intelligent advocates of it! Is it, then, likely to prove a universal remedy, and in the hands of men whose illiteracy is only surpassed by their presumption? Why, the notion of a philosopher's stone might be set down as good

common sense, in comparison with nonsense such as this! Why did not cold water, as a remedy only in certain cases, retain its character with the profession? Because it was found to be often uncertain and unsafe! Why did it not continue to be used systematically in certain cases? For the very same reason! Does Dr. Forbes suppose the profession would have resigned the use of cold water, if it had proved the remedy the quacks say it is? And does he suppose this said profession is not as competent to judge of such a subject as the Priessnitzian tribe? We are too glad of good remedies, when they are obtainable, to part with them readily: but when they prove unworthy of our entire confidence, it would be ignorance and wickedness to give it them! Those who are best acquainted with pathology and practice, best know that there is not, and cannot be, any exactitude in physic. There are plenty of rules for us to know, but there are quite as many exceptions; and he is amongst the wisest of us who is most familiar with these. There never was a universal remedy, and there never will be, whilst constitutions and ages and diseases differ! He who would gainsay this, must be a dolt, or a dupe, or a deceiver! Cold water, like any other remedy, is good in its way, and the profession needs not to be told so; but to talk of its large or its unlimited application, is to tell a tale of folly that has had its answer a thousand times.

#### PAINLESS OPERATIONS.

WE anticipate, and with reason, that the year 1846 will be characterized by one of the most important discoveries that we have ever had to record. The performance of severe operations without the consciousness of the patient, or, in other words, without pain, has ever been a desideratum with the humane and benevolent profession to which we have the honour to belong. Although surgeons have the character of hard-heartedness among the vulgar, yet we can deny the assertion most emphatically, and assert that it is ever their most ardent desire to abridge human suffering. They are educated for that sole purpose, and as a general rule, subject it is true, to some unfortunate exceptions, they fulfil their vocation of alleviating misery in many of its most woeful shapes. That they are thus anxious to alleviate pain, or, when it is inevitable, to abridge its duration, is shown by the extensive employment of the vapour of ether as a means of rendering the patient insensible to pain while undergoing the most severe and agonizing operations. We may even envy our American brethren the discovery of a plan so beneficial to humanity. That the vapour of ether possesses the property of producing perfect insensibility to pain, when inhaled for a sufficient length of time, is now sufficiently proved. We have, ourselves, seen several operations, of greater or less severity, performed on patients during this state of insensibility, who have positively declared, on recovering their senses, that they had not felt the least pain.

The cases recorded in our last number show that ether may be inhaled to a sufficient extent to produce complete insensibility without



danger, either at the time or afterwards. It is, however, a new practice, and will require enlarged experience to fully test its effects. But, although the inhalation of ether will usually produce insensibility, yet we may expect that it will sometimes fail to act in its usual manner. Idiosyncrasy will step in and render it powerless, as we sometimes see in the case of nitrous oxide gas, which, while it produces most powerful and laughable effects in most persons, entirely fails to affect others. This, we anticipate, will be the case with the vapour of ether.

Much will depend on the apparatus employed for the inhalation of the ethereal vapour. Four requisites are necessary to complete success:—1. That the air which has been taken into the lungs should not be again returned to the apparatus, and respired a second time. 2. That the vessel in which the vapour is generated should be of sufficient capacity to allow the air to become saturated with the vapour. 3. That, in order to effect this, a large evaporating surface should be supplied. 4. That the tubes should be of large diameter, and the valves of the most delicate construction, so as to afford no impediment to free respiration.

The first of these objects is fulfilled by the employment of two valves, one of which is perpendicular and allows the air charged with vapour to pass from the apparatus to the lungs of the patient, but prevents the return of the expired air to the apparatus; while the other is horizontal, with a perpendicular movement which allows the expired air to escape into the atmosphere, but closes when inhalation is attempted. The structure of the valves will be better understood by a reference to a more detailed description published in the present number. The second condition is fulfilled by employing a large glass vessel. A large evaporating surface is obtained by placing a number of small pieces of sponge in the glass vessel, which are kept soaked with ether. We need scarcely remind our readers of another circumstance of great importance—that the ether should be perfectly pure and highly rectified. Small quantities of sulphurous acid and of alcohol are contained in the common crude ether. Sulphurous acid gas is of a very irritating nature, and induces troublesome cough; while the inhalation of vapour of alcohol might induce a prolonged state of insensibility, and a degree of reaction which would prove very inconvenient, if not dangerous, to the patient. We say *might*, because we are not acquainted with any decided experiments on the inhalation of alcoholic vapour.

The conditions we have described are best fulfilled by an apparatus constructed by Mr. Robinson, surgeon-dentist, of Gower-street, which is carefully described and figured in our present number. We have to apologise to our readers for having failed to perform our promise of introducing a wood engraving into the last number of our journal; we can only excuse ourselves by stating that the press was delayed several hours, with the expectation that the cut would have been received, but, as it did not arrive from the engraver's in time, we were compelled, very reluctantly, to go to press without it.

This subject continues to excite the liveliest interest both in and out of the profession. Medical men are flocking in large numbers to our hospitals to witness the results, whenever an operation is likely to be performed by this means.

At University College Hospital, on Friday, Mr. Liston attempted the operation of amputating the forearm by this method, with the assistance of Mr. Squires' apparatus; but, after endeavouring to produce insensibility for ten minutes without success, the arm was amputated with the usual amount of pain.

On Saturday, Mr. Tatham also attempted amputation of the finger, using the same apparatus, with the same want of success.

Several dental operations were successfully performed by Mr. Robinson, at his own house, in the presence of Messrs. Liston, Quain, Stocks, and other medical gentlemen. In one of these the vapour had not been inhaled for a sufficient length of time, and the patient complained of some pain, but not nearly so great as that he had suffered before in the extraction of teeth.

On Monday, at University College Hospital, a most extraordinary scene occurred. A woman, it appears, was to have a tumour of the breast removed by Mr. Liston. After inhaling the vapour of ether for upwards of twenty minutes without any sensible effect, the operation was performed with the usual accompaniment of severe pain. After this, a woman was operated on for partial closure of the mouth. Mr. Robinson superintended the inhalation of the vapour, using his own apparatus; the patient became perfectly insensible in two minutes, and the operation was completed before the patient was aware that it had commenced. When asked by Mr. Liston whether she felt any pain, she replied—"No, Sir, I have been asleep."

At King's College Hospital, Mr. Fergusson operated on Tuesday, on a woman for laceration of the perineum. The patient, after taking two or three inspirations, declined to go on, declaring that it would render her insensible; and, preferring to retain her sensibility at the expense of pain, Mr. Fergusson remarked, that their worthy *physiologist*, Dr. Todd, justly observed that "she illustrated the physiology of obstinacy." Mr. Robinson attempted the administration of the vapour in this instance.

Other operations have probably been performed in various hospitals, which have not come to our knowledge, with more or less complete success. We print an account of one from Bristol, extracted from the *Times* paper, together with a letter from Mr. Herapath, accompanied by some editorial observations.

We draw the conclusion from a somewhat extended experience, that, in by far the great majority of cases, insensibility to pain will be produced by the inhalation of the vapour of ether, although some few persons will altogether resist its influence. But by far the majority of failures will be the result of imperfection of the apparatus or want of tact in its application, or, again, from ignorance of the signs of perfect insensibility. As we increase in knowledge of the action of this agent, we do not doubt that

the number of failures will decrease; although at present we expect to hear of many such arising from the causes we have enumerated.

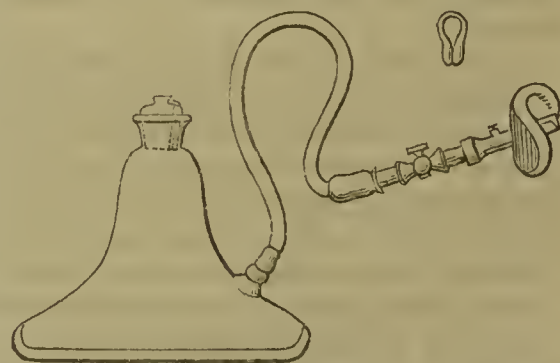
Ether acts on the animal body in the same manner as alcohol; but the effect is known to be much more evanescent. In the case of alcohol, that substance does not appear to escape as alcohol, but undergoes decomposition in the system; while ether is exhaled at once, without undergoing any change in its composition. Adding to this, that ether is much more easily converted into vapour than alcohol, we may give a reason for the transient effect of ether on the system. We have said that the vapour of ether acts in a similar manner to alcohol, or, to use a vulgar term, makes the patient dead-drunk and insensible to pain; but this inebriety is of a very transient character, and is not followed by the excitement and disorder of the system consequent on alcoholic potations.

So far as our own personal knowledge has gone, no injurious effects have followed its exhibition, and most, if not all, the patients have escaped inflammatory fever, so frequently a consequence of operations.

Subjoined will be found a selection from a vast amount of communications which have reached us on this interesting subject.

## PAINLESS SURGICAL OPERATIONS.

### DESCRIPTION OF ROBINSON'S INHALER.



The above woodcut represents the apparatus, invented and employed by Mr. Robinson, for the inhalation of the vapour of ether.

The mouthpiece appears to be the most important part, which contains two valves—a perpendicular one which permits a perfectly free inhalation, but closes when expiration begins; and opens the other, a horizontal valve, with a perpendicular action, placed within one inch of the pad—by means of which, inspiration and expiration are both rendered perfectly free.

The pad for covering the external contour of the mouth consists of a thick piece of leather cut to the shape of the mouth, to the inside of which is sewn two or three layers of flannel or cotton wool, which is covered with soft leather; within a quarter of an inch of the external edge of the pad is inserted a very thin piece of sheet copper, which, being of a flexible nature, is easily adapted to the variable external contour of the mouth.

A small clip for compressing the nostrils is sometimes employed, which effectually prevents the patient breathing anything but the air charged with the vapour from the vessel.

About three inches from the horizontal valve, inserted in the tube, is a stopcock for cutting off the communication with the vessel, if necessary, or if the operation should be difficult or protracted,



and the patient likely to recover his consciousness before its completion, the stopcock can be reopened for a fresh supply of vapour.

As regards the glass vessel which contains the ether, it is merely the lower part of Nooth's old soda-water apparatus, at the bottom of which are placed twenty or thirty pieces of sponge, cut in a triangular shape, so as to present as many surfaces for the evaporation of the ether as possible.

The apparatus we have seen employed by Mr. Robinson himself, at King's and University College Hospitals, is similar in every respect to the above, with the exception that he has inserted into the mouth of the lower vessel the upper part of Nooth's apparatus, which also contains numerous pieces of sponge suspended on wire. The tube is nothing more than common flexible tube, only of a larger size, which is fastened to the lower opening of the apparatus and to the tube constituting the mouthpiece, by means of sealing-wax dissolved in spirits of wine.

That Mr. Robinson has succeeded in inventing a most perfect apparatus cannot be questioned, we should imagine, if we refer to our hospital reports and the numerous operations by himself on the teeth, in the presence of some of the most eminent medical men in the country.

The following amusing remarks on this subject are extracted from the "Annales de Thérapeutique." We fancy that our friends on the other side of the English Channel are rather annoyed that England should have the priority in the introduction of this valuable surgical acquisition into Europe. We know that much worse experiments are performed in Paris.

"An English Journal (*Medical Times*, Dec. 26, 1846) reports that Mr. Liston, surgeon of University College Hospital, London, performed two operations last week (amputation of the leg and evulsion of the toe-nail), without production of pain or knowledge of the patient, by rendering them tipsy with vapour of ether. The vapour was respired for several minutes by means of a proper apparatus, until the patients became comatose. When sensibility returned, they found that the operation had been performed without having felt it. Already, says the author, this plan has been employed in America for the same purpose. *If this account be correct, we cannot attach too much blame to such conduct. You poison your patients to spare them pain. Are you certain that they will be restored? As well might you allow them to sleep under an upas tree, or make them dead-drunk with a good dose of gin. The English journals speak of some operations performed without pain during the mesmeric sleep. It is probably to counterbalance these well-executed sleight-of-hand tricks of charlatanism that Mr. Liston has operated in his turn with the ether. Sad experiments!!! Homoeopathy and animal magnetism shake hands, as well in Paris as at London.*"

We fancy that we shall very soon hear of similar trials in the most theoretical and experimental country in the world—France; that they will then have a different appearance, and be attributed to the pure love of science, &c.

[To the Editor of the Medical Times.]

Park-street, Bristol, Jan. 4.

SIR,—Your attention has, no doubt, been drawn to a surgical case here, in which the "inhalation of ether" has been used very successfully. I beg to hand you a statement of it, with a few observations.

SURGICAL OPERATION WITHOUT PAIN.

Thursday, Dec. 31.—A young man, a patient at the Bristol General Hospital, had his left leg removed above the knee, rendered necessary by a white swelling of three years' standing. At the

suggestion of Dr. Fairbrother, the senior physician to the hospital, Mr. Lansdown, the operating surgeon, was induced to try the effect upon the patient of the inhalation of the vapour of sulphuric ether; by this mode the patient is thrown into a state of utter insensibility, by means of the bladder used in imparting the laughing gas, into which Mr. Herapath introduced the ether, and caused the patient to inhale the vapour. After one minute and a half the patient was unconscious: the surgeon then commenced the incision. After the lapse of two or three minutes, Dr. Fairbrother again administered the vapour, keeping his fingers on the patient's pulse, and watching his breathing: alternately wine was administered in small quantities with the vapour, which kept him in a state of unconsciousness for the period of fifteen minutes. The limb was separated from the body in one minute. During the operation, the features did not express the least pain, and the patient remained motionless. At the conclusion of the operation he awoke perfectly quiet and calm, and said, he had not felt any pain either in cutting through the skin, flesh, bone, nipping the bone, or tying the vessels, some of which required to be dissected from the nerves, which is exceedingly painful. This is the second time, we believe, this process has been used in England in amputating; in America it has been resorted to for the purpose of large and painful operations, which are performed rapidly, and do not require any very nice dissection, the effect passing off in from two to three minutes. By the satisfactory experiment now before us, as administered by Dr. Fairbrother, it is manifest the inhalation of the vapour can be satisfactorily applied to operations of a long and painful character; it may also be employed for the alleviation of pain in medical cases. The patient has slept better than he had for ten nights, and is going on favourably.

The above is a plain statement of the matter. I conceive facts of some importance are illustrated by it:—1. In the cases cited by the American authorities, only temporary insensibility has been produced; in the instances of teeth extraction almost all the cases frowned or raised the hand; one patient whose leg was amputated uttered a cry when the sciatic nerve was divided; others opened their mouths and showed other signs of consciousness. In one case, where the inhalation was carried on incessantly for a long period, the patient suffered from a narcotism and drowsiness lasting an hour, and the insensibility approached to coma; respiration was very slow, hands cold, and the patient insensible; in the present case, by keeping my fingers upon the pulse and closely watching his respiration, varying the process by giving wine (leaving off at intervals all the means, and allowing him to breathe the atmospheric air), he was kept exactly in that state of unconsciousness that was desired, from which he awoke immediately after the operation was completed, and the treatment ceased, without the least unpleasant feeling, and appeared as though he had suffered no pain. His pulse, when placed upon the table, was 110; on the first application of the inhalation rose to 145 and 150; the average of the pulse was 60 to 80; the respiration was in proportion; the pupils were contracted.

I should not hesitate to superintend a case requiring a longer duration of the application than the present, which occupied from fifteen to twenty minutes.

I would just observe, having narrowly watched this case twice a day, the gradual improvement of the patient is very satisfactory, which I attribute in a great measure to the absence of the shock to the nervous system which usually accompanies these severe operations: a result so desirable that it is evident the process has manifold advantages; and I would beg to say, that under judicious management, and discretion in the selection of cases, it may be made available in numerous instances for the benefit of suffering humanity.

I am, Sir, your obedient servant,

A. FAIRBROTHER, M.D.,  
Senior Physician to the Bristol  
General Hospital.

P.S.—The quantity of ether used was about 1 oz., taken from the dispensary of the hospital.

[To the Editor of the Medical Times.]

SIR,—As notice has been given of a patent for the inhalation of ether in surgical operations, and as such notice may deter surgeons and dentists from using it in the mitigation of pain, I beg to ask your insertion of the following letter, which I have received from one of her Majesty's counsel "learned in the law."

Yours, &c.,

F. BOOTT.

24, Gower-street, Jan. 5.

"MY DEAR BOOTT.—In answer to your question with respect to the patent alleged to have been obtained for a 'process for procuring insensibility to pain by the administration of the vapour of ether to the lungs,' I beg to say, that I am clearly of opinion that no patent can be valid, giving the patentee the exclusive privilege of *administering the vapour of ether to the lungs*. If the word 'process' is used to denote some particular apparatus for the convenient administration of the vapour, then the validity of a patent for such apparatus will depend upon whether the patentee is the first inventor, and the apparatus was not known to, and in use by, the public before the granting of the patent. The power of the Crown to grant patents is defined by the 21st James I., cap. 3, which was passed to put an end to the abuse of the power of the Crown to grant monopolies. That power was by this statute limited to the granting patents 'for any manner of *new manufactures*.' In commenting upon this statute, in 'Rex v. Wheeler' (2nd Barn. and Ald. Reports, 245), Lord Tenterden, describing the sort of inventions for which patents can be granted, says, 'The word *manufactures* has been generally understood to denote either a thing made, which is useful either for its own sake and *vendible* as such, as a medicine, a stove, &c.; or to mean an engine or instrument to be employed either in making some previously known article, or for some other useful purpose, as a stocking-frame, or steam-engine for raising water from mines; or it may, perhaps extend also to a new process to be carried on by known implements or elements acting upon known substances, and *ultimately producing some other known substance* in a cheaper or more expeditious manner.'

"I could cite abundance of other authority to the same effect, but it must be sufficiently plain that *no construction* of the word 'manufacture' can give the Crown the power to confer by patent the exclusive privilege of administering the vapour of sulphuric ether for the purpose of producing insensibility to pain, or of *administering* any particular drug, or compound of drugs, for the purpose of producing any particular effect, although an inventor may have a patent for the *manufacture* of particular medicinal preparations. But who ever heard of a patent for the performance of a new operation in surgery (as for example, that by which squinting is cured)? I can see no distinction in principle between such a patent, and the patent supposed to be claimed for the administration of ether. If this patent could be supported, the patentee might grant a monopoly to any particular surgeon, of all operations to be performed with the assistance of the ether, or he might grant it to such surgeons in each town as he might please to select, to the exclusion of others, for though he might sell licences to *all*, he would not be *obliged* to do so. He might almost be said to hold in his hands, in some cases, the power of life and death. Upon the whole, I am satisfied you may safely advise your professional friends to continue to use the ether in their operations, without the slightest fear of legal consequences. Whether the instruments which are manufactured for the purpose are an infringement of any valid patent, will be a question between the patentee and the manufacturers; but the operators can have nothing to do with this, and it would be most deplorable to have any interruption to such a mitigation of human suffering.

"Believe me, my dear Boott, yours ever faithfully,  
"Q. C.

"Francis Boott, Esq., M.D.—Jan. 4."

OPERATION AT ST. GEORGE'S HOSPITAL, WHILE UNDER THE INFLUENCE OF ETHER, BY MR. TATUM.

On Saturday last Mr. Tatum performed ampu-



tation of a finger, while the patient (a female, aged forty-eight) was under the influence of the vapour of ether.

The inhalation was continued some time before the patient became affected by it, which might be attributable to one of two causes, or to both—the imperfect construction of the vessel for the administration of the ether, and the passage of atmospheric air into the mouth, on each side of the mouthpiece of the tube. When it had proceeded as far as Mr. Tatum deemed it proper to allow (for reasons afterwards stated), the amputation was commenced. At the first incision she screamed, and continued to moan during the remainder of the time; but did not exhibit sufficient consciousness to lead one to suppose she was aware of the exact nature of the operation.

After she had been removed, Mr. Tatum observed, in the course of a few remarks, that the attempt to produce insensibility might be considered to have partially succeeded, though not entirely, because she screamed when he made the first incision. That he did not continue the application of the ether, as she was advanced in life, and was troubled with a chronic cough; but, from what had taken place, he had no doubt, that with a more fit patient for the experiment, there would be a more satisfactory result.

When she was in bed, the writer heard her inquire for her finger; and, in answer to some questions, she stated that till the first incision she was quite insensible, and then she was not aware of the exact nature of the operation, but felt, as she described it,—“as if she were being cut to pieces.” She was not quite herself again for some time after.

BRISTOL, Jan. 2.—We noticed a few days since a method of rendering a patient insensible to pain during the performance of surgical operations by the inhalation of the vapour of ether combined with atmospheric air. The following are the particulars of the successful amputation of the leg of a patient in the Bristol General Hospital on Friday, in which this new principle was tried:—

A young man, a patient at the Bristol General Hospital, had, on Friday, his left leg removed above the knee, an operation rendered necessary by a white swelling of three years' standing; and at the suggestion of Dr. Fairbrother, the senior physician to the hospital, Mr. Lansdown, the operating surgeon, was induced to try the effect upon the patient of the inhalation of the vapour of sulphuric ether. After inhaling the vapour for one minute and a half, the patient became unconscious, and the surgeon commenced his incision, and, after the lapse of two or three minutes, Dr. Fairbrother again administered the vapour, keeping his fingers on the patient's pulse, and watching his breathing. Wine was administered in small quantities alternately with the vapour, which kept him in a state of unconsciousness for the period of fifteen minutes. The limb was separated from the body in one minute. During the operation, the features did not express the least pain, and the patient remained motionless. After the operation, he awoke, perfectly quiet and calm, and he said he had not felt any pain, either in cutting through the skin, flesh, bone, sawing the bone, or in tying the vessels, some of which required to be dissected from the nerves. Since the operation the patient has slept better than he has for ten nights, and is going on favourably.

The following letter upon the best mode of applying the vapour we have received from Mr. Herapath, the well known analytical chemist, who was present at the operation:—

[To the Editor of the Times]

“Sir,—I feel it would be wrong to withhold from the faculty and the public in general that we have repeated the American experiment of administering the vapour of ether, as a means of deadening the sensibility of the nerves, and with the most perfect success. A young man was to lose his leg by amputation of the thigh, at the Bristol General Hospital, and this was thought a good opportunity for the trial. The operation was rather a long one. From several arterial branches having to be taken up, it occupied fifteen minutes; and during this

whole time the man was kept in a perfectly quiet state, without motion or sound. He afterwards stated himself to have been conscious of the amputation, but without pain, beyond that of a scratch; and during the operation it was found that, with the assistance of wine on the one hand, and the vapour of ether on the other, he could be elevated or depressed with the most complete control, his absence of pain being continuous. The operator, Mr. Lansdown, and the other medical gentlemen present, will, no doubt, give the public the details of the case, and my duty is merely to show the very simple application of the agent. No complicated apparatus is necessary, nor any extraordinary care in purifying the ether. A common, but very large, bladder should be fitted with a collar, to which an ivory mouthpiece with a large bore can be screwed. Without the intervention of any stopcock, pour in about an ounce of good common ether, and blow up the bladder with the mouth till it is nearly full; place the thumb on the mouthpiece, and agitate the bladder so as to saturate the air in it with the vapour. As soon as the patient is ready for the operation, close his nostrils, introduce the mouthpiece, and close the lips round it with the fingers. He must now breathe into and out of the bladder, and in about one or two minutes the muscles of his lips will lose their hold. This is the moment for the first cut to be made. In two or three minutes the effect will begin to disappear; the mouthpiece should be again introduced, and this repeated as often as required. If the pulse should indicate a sinking of the patient, a little wine will restore him. I have no doubt that the inspiration of nitrous oxide (laughing gas) would have a similar effect upon the nerves of sensation as the vapour of ether, as I have noticed that persons under its influence are totally insensible to pain; but I do not think it would be advisable to use it in surgical cases, from its frequently producing an ungovernable disposition to muscular exertion, which would render the patient unsteady, and embarrass the operator.

“The administrator of the vapour will of course take great care that no fluid ether shall be allowed to be drawn into the lungs, otherwise suffocation would result, or at the best a violent cough, which must protract the operation and considerably distress the patient.

“I am, Sir, your obedient servant,

“WILLIAM HERAPATH.

“Bristol, Jan. 1, 1847.”

[We are sorry we cannot agree with Mr. Herapath as to the form of apparatus to be used for the inhalation of ether by patients about to undergo surgical operations; with such an apparatus the patient will run great risk of asphyxia, for two reasons: first, the bladder is directed to be blown up by the mouth of an assistant, thus introducing air containing a large per centage of carbonic acid; and, secondly, the air becomes still more charged with that noxious gas by being repeatedly respired by the patient. We have now witnessed upwards of fifteen or twenty operations performed by means of the apparatus described and figured in our present number, with the most perfect results; the construction of this apparatus has met with the perfect approbation of the highest authorities in the profession, and is pronounced to be most effectual and safe in its application. The results have now been witnessed by hundreds of the medical profession, and they have acknowledged that it really exerts the influence attributed to it by our American brethren, and that it may be employed without danger or difficulty.]

We copy the following from the *Boston Herald* being the concluding observations contained in a report drawn up and published by the dentists at Boston, in reference to the inventor's right of patent:—

“But there is a dark side to this subject which we would gladly have been spared from presenting, and which, if allowed to remain, will throw a

shade over all the truths which are yet to be learned concerning it. This discovery is one of interest to the whole civilized world. It may be applicable to the wants of millions of sufferers, and should be a free offering to those who can be relieved by it.

“Yet how is this thing, as it now stands before the public? It has, to be sure, been introduced, in a manner which we do not clearly understand, to the free use of the surgeons of the Massachusetts General Hospital, for the benefit of that institution; but from all else an attempt is made to shroud it by secrecy—by the mottled mantle of “ethereal compound” and “anodyne vapour,” and to exclude it by what we believe, from abundant legal authority, to be an unwarrantable and invalid patent. All this aim at exclusiveness we deprecate as unworthy of all regular and honourable physicians, surgeons, and dentists; and we will not in any way give countenance to efforts for depriving the unfortunate and suffering portion of our fellow-beings from the full and free advantage of that which appears to us to be their inherent right.

“Though it might have been a pecuniary benefit to each and all of us to have complied with the exorbitant and otherwise unreasonable demands, which we are informed have been made for the right to use the vapour of ether by the ‘proprietor’ of the said patent, we heartily protest against holding the right to use it on such tenure, or as a secret medicine. And we have good reason for saying, that we believe, relying on the well-known character of Dr. Jackson, that from whatever cause his name has appeared in the specification for a patent, it could not have been in conformity with his own original design, nor in accordance with his own noble and generous feelings as always heretofore manifested, to keep the discovery a secret, or exclude it from free and general use.

“But, the question is asked, should there not be secured to the discoverer some reward or compensation? We answer yes; and, if our hope shall be in any considerable degree realized in the benefit of the discovery to mankind, the consciousness of having made it will be reward enough for any true philanthropic spirit; and, if a more substantial recompense shall be due, there is a high, honourable, and generous way for the public to do it, that will be of more value than all the patents in the world.

“In the case before us, is there any new invention, or manufacture of instrument or apparatus, by which the ether is administered? No; for we have seen an attested copy of the specification furnished from the Patent-office at Washington. The apparatus used by Mr. Morton (and now, as we learn, by many others who dare to use the long-known manufactured article—pure sulphuric ether) was contrived and manufactured by an ingenious philosophical instrument maker, Mr. N. B. Chamberlain, in School-street, and we have his certificate to this effect.

“We now close by saying, that we have presented this subject in the manner above expressed, in reply to the numerous questions and demands of our fellow-citizens who desire to know what they have a right to know about it; and we have endeavoured to discharge the duty which our position requires, by informing them. If we have succeeded in this attempt to advance the cause of science and truth, we shall be content.

(Signed)

“J. F. FLAGG.	A. L. WAYMOUTH.
JOSHUA TUCKER.	W. W. CODMAN.
THOS. GRAY, JUN.	E. G. KELLEY.
D. M. PARKER.	CHAS. F. BARNARD.
ELISHA G. TUCKER.	CHAS. EASTHAM.
FRANCIS DANA.	JOHN CLOUGH.”

VICE-CHANCELLORS' COURTS.

WEDNESDAY, Dec. 23.

(Before Sir L. SHADWELL.)

BROWN V. THE MEDICAL TIMES.

This was a motion for an injunction on notice to restrain the defendant from publishing certain ar-



ticles in which the plaintiff claimed a copyright, under the following circumstances:—The plaintiff represents the well-known firm of Longman and Co., who are the publishers of a weekly journal, entitled the *Medical Gazette*, in which articles chiefly of a surgical and scientific description are published. The defendant is the proprietor of a journal, also published weekly, and treating of like subjects, and called the *Medical Times*; both have been brought out regularly for a considerable time, embracing some years, but are of different bulk, the defendant's work being quarto, and the plaintiff's octavo. The plaintiff employs a gentleman to conduct the *Medical Gazette*, who acts as a species of editor, and obtains the matter of which it is composed from such sources as he can command, the matter thus obtained being arranged by him, and printed and sent forth to the public, and consisting of original articles, translations, compilations, and extracts from other British and foreign works. In the month of April, 1845, a new series of the plaintiff's work was commenced, and since that time, and especially in the number of the *Medical Times* for the 6th of June, 1846, several articles were alleged to be piratically taken from the plaintiff's journal, particularly an article upon the operation of "tapping," and these were prefaced by an advertisement in the defendant's table of contents, stating that such and such articles (of which a list was given) were the only articles of interest to the profession that had appeared in the last three numbers of the plaintiff's publication. The articles in question were abridged from those in the *Medical Gazette*, and the plaintiff by his affidavit stated that the several articles were supplied by various persons who were remunerated by himself and his partners; that the editor, who had been such since the new series, had a certain salary, and supplied all articles, extracts, and matters, but upon the terms that the copyright and property in the same should belong to the plaintiff and his partners. By the 18th section of the Copyright Act, the 5th and 6th of Victoria, chap. 45, it was enacted, that any publisher or other person who should conduct any periodical work published in any book whatsoever, or employ persons to compose the same in or as part of such work, on the terms that the copyright therein should belong to such publisher, and paid for by such proprietor, the copyright in such work so composed and paid for should be the property of such proprietor, who should enjoy the same right as if he were the actual author; but after the term of twenty-eight years the property in works published in reviews in portions to revert to the author, the publisher not to be at liberty during the twenty-eight years to publish such work in a separate form without the consent of the author, provided that nothing in the act contained should prejudice the right of the author, who, by a contract, express or implied, might have reserved the right of publishing the work separately; but such author should still be entitled to the copyright, without prejudice to the publisher's right of publishing the same in periodical publications.

The defendant stated that the authors of the articles which it was alleged he had pirated had actually requested him to insert them in his journal, and in some instances had abridged them in the form in which they were inserted; and it was contended that they were, moreover, fair abridgments, viz., more than one hundred and twenty-seven columns abridged into a tenth of that space, and not such as courts of equity had decided as being infringements of copyrights, if any such existed in the present case, which was denied, for the contracts to supply such articles were between the authors and the editor, and not between the authors and the publisher. If the defendant's proceeding were decided to be piracy, the same argument equally applied to the public papers of the day, or even the reports of legal cases, which were published in the most varied forms. It had been decided that there was a copyright in letters written in private correspondence, and, if so, much more in articles written for the express purpose of publication.

Mr. Bethell and Mr. Renshaw appeared in support of the motion, and cited "*Lewis v. Fullerton*," 6 Beav., and "*Dickens v. Lee*," *Jurist*.

Mr. Rolt and Mr. Fooks appeared *contra*, and cited "*Dodsley v. Kinnott*," *Ambl.*, and "*Lord Percival v. Phipps*," 2 Ves. and Bea.

The Vice-Chancellor: Now, I cannot but myself think, that before I interfere to stop this publication, that the matter must be tried at law, and for this particular reason. When my attention was first of all called yesterday to the language of the plaintiffs' affidavit, as contrasted with the language of the 18th section of the 5th and 6th Victoria, cap. 45, I was struck with this, which has rankled in my mind, and this morning early I studied the section, in order to see whether the thought that first struck me was such that I could remove, or whether it does not still operate, and whether effect ought not to be given to it to this extent: that it appears to me the plaintiffs have not by their affidavit sufficiently made out that sort of derivative copyright which, under the act of Parliament, they might have obtained, and for aught I know have obtained. I will state exactly how it occurs to me upon the 18th section.

The object of the act of Parliament plainly was to give a new species of copyright in periodical works, by which I mean to have it once for all understood, a work that comes out from time to time and is miscellaneous in its articles; and then the act says—"Be it enacted, that when any publisher or other person shall, before or at the time of the passing of this act, have projected, conducted, and carried on, or shall hereafter project and carry on, or be the proprietor of, any encyclopædia"; and then follows several other words, in which a periodical work is found—"and shall have employed, or shall employ, any person to compose the same, or any volumes, parts, essays, articles, or portions thereof, for publication in, or as part of, the same and such work, volumes, parts, essays, articles, or portions, shall have been, or shall hereafter be, composed under such employment, on the terms that the copyright therein shall belong to such proprietor, projector, publisher, or conductor, and paid for."

Now, it seems to me, that there is an inaccuracy in the language, and the only possible way of making it English would be, by referring the words "and to be paid for" to the former words, "shall have employed and paid for." In that sense it would be right.

Mr. Bethell: If one is at liberty to do so.

The Vice-Chancellor: But still one must speak tenderly of these things. The spirit may be very good, but the composition of them is certainly not always the very best:—"and paid for by such proprietor, the copyright in every such periodical work, published in a series of books or parts, and in every volume, part, essay, article, and portion so composed and paid for, shall be the property of such proprietor, projector, publisher, or other conductor, who shall enjoy the same rights as if he were the actual author thereof, and shall have such term of copyright therein as is given to the authors of books by this act."

Mr. Bethell: It is quite a maze; the only thing that is clear in it is the copyright in a magazine.

The Vice-Chancellor: I have got the words "shall have been, or shall hereafter be, composed on the terms," that is, that the author shall have employed the person to compose on the terms that the copyright therein shall belong to such proprietor or publisher, and paid for by such proprietor. The copyright then shall belong to the publisher who has so employed the person to make the articles, and has paid him for them upon the terms that the copyright shall belong to the publisher.

Mr. Bethell: Your Honour will pardon me for a moment for saying that that construction would have this effect, that if I sent to the "*Quarterly*" an article written by me, which is paid for, it would confer no copyright; because, according to the language of the act, there has been no antecedent employment of me.

Mr. Rolt: That is quite right; that is the principle acted on with respect to the "*Quarterly*" and *Edinburgh Reviews*.

The Vice-Chancellor: I am not observing upon that, because I conceive that the payment is evidence of a thing at least tantamount to the original employment. I am not putting it in that way.

Mr. Rolt: I am sorry to interrupt your Honour; it was not with a view to anything your Honour said, but what fell from Mr. Bethell. I wished to call the attention of the court to some celebrated articles of Mr. Macauley's, which are now published in separate volumes, every one of which was written and paid for, and they all appeared in the "*Edinburgh Review*."

The Vice-Chancellor: I am now assuming, what has been in my mind all along, that the meaning of the act of Parliament, as I understand the language of it, is this, that if a publisher of a periodical work employs a person to write articles for him, and pays him for them upon the terms that the copyright shall be the proprietor's—that is, the proprietor of a periodical work—the proprietor shall have the copyright of the periodical work containing all the articles, with certain subsequent limitations, upon which nothing turns as far as this case is concerned.

Now, as I collect from the language of this affidavit, it represents this, that the Messrs. Longman and their partners have been for a considerable time the publishers of this periodical work, which is called the *Medical Gazette*, and in the month of April, 1845, a new series was published, which is still continued. Well then, the affidavit represents that the *London Medical Gazette* consists, to a considerable extent, of original articles, and so on, "written and composed particularly and expressly for this book, and that the said *London Medical Gazette* has been from time to time written, composed, and edited for me and my partners by various persons who have been employed, paid, and remunerated by me and my partners for so doing." Then it says—"and I say that the present editor of the *London Medical Gazette* has been the editor thereof ever since the publication of the new series"—that is, since April, 1845—"and that I and my partners have paid to the said present editor, during his employment as editor of the said *London Medical Gazette*, under an agreement to that effect, a considerable annual pecuniary salary, and that the said present editor, for the consideration or salary aforesaid, has supplied, and still does supply, all the articles, dissertations, communications, and so on, and matters printed and published in the said *London Medical Gazette*, but upon the terms that all copyright in the said *London Medical Gazette*, and in all communications, and so on, shall belong to me and my partners."

Now, if the case had been meant to remain upon that statement, why, I should have put this construction upon the language of it, that ever since the month of April, 1845, the present editor has himself composed all the articles which are printed in the *London Medical Gazette*; but, upon turning to subsequent pages, it is quite plain that that is not so. The present editor has been paid; but it appears that, whatever may have passed between him and the original composers, there is no allegation, as I understand it, that the original composers have been paid for the copyright in their composition. And, when I find a statement *seriatim* of a variety of articles which have been composed by several gentlemen whose names follow, I have then this fact presented to me, that Messrs. Longman have not dealt with them by payment, but have dealt in this way: that they have paid their editor, and whether the editor has paid those gentlemen who so composed does not sufficiently appear upon this affidavit. The fact is, the affidavit is silent as to that; and if, therefore, I find the fact to be, on the face of the affidavit, that A, B, and C have composed articles which, by reason of some dealing between them and the editor, who alone has been paid by Messrs. Longman, these articles have by the editor been inserted in this *Medical Gazette*, which is published by the plaintiff, it appears to me, if that be the statement of the facts taken altogether, that then the Messrs. Longman have not entitled themselves to the copyright which is given under the terms of the 18th section, as the publishers of the periodical work, who pay the composers of the articles inserted in the periodical work upon the terms that the copyright shall belong to them as the publishers.

Now, it may be, and it is certainly very possible,



consistently with what is here stated, that the matter has been overlooked, and that the substance of the case may be, that the editor himself has been employed as a sort of agent, in an honorary way, to deal with these gentlemen, who themselves composed the separate articles, and that he has paid them; and it may be true that the payment may have been in such a manner as that, in point of law, it ought to be taken as a payment made by Messrs. Longman; but my opinion is, that there is such an infirmity in the statement on this affidavit of the terms, which according to the language of the 18th section will vest the copyright in the publishers, that I do not think at present I am authorized to interfere; and, though it certainly does appear to me that there is a case for interference, I do not say now to what extent; and it certainly also appears to my mind, that it never can be said, according to the express language and within the spirit of this 18th section, that if persons do become the limited owners of the copyright in original compositions, published by them in their periodical works, that any other person who is the owner of a periodical work has a right to take from them, without stint and to any extent; and I cannot but say, in my opinion, that cannot be the law—it appears to me it would be contrary to the express enactment of the statute, and at any rate contrary to common honesty, and it rather appears to my mind, to common sense; but still my opinion is, that there is such an infirmity about the mode of stating the title in the manner I have represented, that I think that all I can do at present is to direct that the matter stand over, and that the plaintiffs be at liberty to bring such action as they may be advised, in the usual manner.

Mr Rolt: With liberty to apply.

Mr. Bethell: Yes.

## MISCELLANEOUS CORRESPONDENCE.

### OVARIAN DROPSY.

(To the Editor of the Medical Times.)

SIR,—I am sorry that a clerical error in my statement of Mrs. D's case should have afforded both Dr. Murphy and Dr. F. Bird an opportunity for remarking upon it in their respective letters. The original word in my manuscript was *reverted*, but, having requested one of my pupils to copy it for publication, the word *inverted* was accidentally written; but surely any one who reads my explanation of the case, after the word inverted, must see what was my meaning; as, however, that is not the point at issue, I shall just make a few allusions to both letters: first observing, that nothing could be further from my thoughts or intentions than to imply any want of professional knowledge to Dr. Murphy or any other gentleman mentioned. I purposely put the case in that form so that no doubt could afterwards arise as to its authenticity. I am very much obliged to Dr. Murphy for bringing forward his cases in the fair spirit of his letter, but I cannot agree with him in his deductions, because, it will be observed, that the first lady, who only *partly* tried the plan, "has now been more than three years comparatively well"; and the second lady, described by Dr. Murphy as *younger* than his former one, I know was between forty and fifty years old, and of a poor constitution. Now, Dr. Murphy says, in this case, that the plan "had utterly failed, the disease again showed itself in a more aggravated form, and at the beginning of the present year (1846) she again came to town to consult Dr. Rigby. All hope of recovery was passed, and she died in March last."

When Dr. Murphy wrote this, I am quite sure he did not know the following facts, he being quite incapable of stating anything not strictly correct. This lady was brought to town by an eminent provincial surgeon, who, having proved the success of the treatment by pressure in another case, was desirous of trying it in this; he came to town with his patient, and Dr. Locock, who, according to Dr. Murphy's own words, "had witnessed a case in which Mr. Brown's practice was successful," advised it in the present case; the treatment was

very carefully tried, and failed, and the surgeon from the country brought her up to town to consult me. I did not think it probable that any permanent good could accrue from the treatment being again followed, because she had already been twice tapped. However, at her own request, I did tap her, and apply pressure, and the fluid did not return for six weeks, although on the last occasion it returned in a few days. Her health, however, improved, and she stated to me that she was in better health than she had been for a long time; and I advised her to go home to Dublin directly, and on no account to try any further treatment beyond tapping, and to defer that as long as possible; I saw no reason why she might not live for many months. Ten days after taking my leave, I received a letter from her brother, stating she was dead, and, on my calling upon him, I found she had consulted Dr. Rigby, who called in Dr. F. Bird, and they tapped the cyst *per ano*, and the patient died three or four days afterwards. Now, I think, after this statement, it is not fair to say she died under the plan of treatment I advocate. However, that I leave entirely to my professional brethren to decide. At all events, my statement of the case differs from that of Dr. Murphy; at the same time, I do hope it may not be inferred that I expect all, or the greater portion, of the patients submitted to this treatment to be cured; it is sufficient that *any* are cured to test the practice. I need not say that very many reasons may exist why pressure should not be successful, and, if I am not misinformed, Dr. F. Bird, at this present time, could state that one lady whom I had treated unsuccessfully, was not likely to be benefited by any treatment; I think he could state that the patient died a few days after his operation, and that the cyst was found to be a double one, and in both compartments several smaller ones, each containing different-coloured fluid.

Now, as to the letter of Dr. F. Bird, I hardly know how to allude to it, because its tone and spirit are not such as I feel inclined to imitate; and I believe I should have passed it over, but perhaps my so doing might be misconstrued. I beg it may be distinctly understood I have nothing to say personally against Dr. F. Bird or his operation. I wish not to detract from his skill and success in operating; and, in advocating another plan, I am only doing what he does with his own—publishing my cases, and leaving the profession to decide when they will try one and when the other. But as Dr. F. Bird says, in his letter, "I beg, therefore, to deny the accuracy of such statement," I would wish to ask what is it he denies?—that he did see this patient before I did—did pronounce it ovarian dropsy, and did propose operating—and did, after I had treated her, call and examine the patient without communicating with me, and then said he thought the fluid would return in a short time? Now, unless I have been very strangely misinformed, these are facts; and, if so, I think they do *authenticate* my case. The novel theory put forward by Dr. F. Bird, in the concluding part of his letter, I purpose alluding to hereafter more fully.

I am, Sir, your obedient servant,

T. B. BROWN.

27, Oxford-square, Hyde Park.

Dec. 26, 1846.

### INSTITUTE OF MEDICINE AND ARTS.

An introductory lecture was delivered on Wednesday evening, at this institution, the object of which seems to be to prepare candidates for examination, for degrees in both medicine and arts, by causing the candidate to have placed under his inspection, all the objects upon which he is to be examined. No certificates are to be granted by the teachers (four in number), nor are systematic course of lectures to be delivered.

The lecturer (Dr. Cooke) explained that the information to be given would be limited to the demands of the several Courts of Examiners; and the chief principle to be followed appeared to us to be the solution of the published questions, accompanied by demonstration of the object.

The course to be pursued was defended from the imputation of being what is called grinding, by the example of the professors at University and King's Colleges, who, in Latin, Greek, and Botany, confine their notice to the subjects selected for examination by the University of London.

As far as we could judge, the teachers possess ample means of illustrating their lectures, and their position in the profession gives full confidence that they will keep their promises.

The lecture was followed by tea and coffee.

We observed in the rooms, one or two members of the examining bodies, several lecturers in different medical schools, and the secretaries of some of the scientific societies. The weather and previous engagements prevented Dr. Marshall Hall, Mr. Lane, and some other gentlemen from attending. In their apologies they expressed their wishes for the success of the institution. If carried out in good faith, and in the terms of the prospectus, we think it will be of benefit to the students.

[To the Editor of the Medical Times.]

SIR,—Permit me, through the medium of your valuable periodical, to state that I have not now, nor ever had, in the slightest degree, any connection, directly or indirectly, or in *any* shape whatever, with a fellow usurping and advertising in the name of "Dr. Bond" (and formerly as "Dr. John Bond") now of 62, Newman-street, for the sale of foreign diplomas. As having omitted, long ago, to forewarn the professional and other public of such daring effrontery, I now do so, as thinking it prudent no longer to neglect the old adage, "better late than never," so that any well-principled and conscientious man may be put upon his guard against coming in contact with such an arrant impostor. Should, however, such party still continue to repeat such advertisement in the same name, his own, coupled with circumstances which I have recently ascertained, shall then at once appear; and I have the honour to be, Sir, your very obedient servant,

JOHN BOND,

M.D., M.R.C.S.L. & E., L.A.C., &c.

George-street, Portman-square,

Dec. 24, 1846.

### MORTALITY TABLE.

For the Week ending Saturday, Jan. 2, 1847.

Causes of Death.	Total.	Average of 5 Win ters.
ALL CAUSES.....	1510	1068
SPECIFIED CAUSES...	1502	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	170	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	142	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	236	170
Diseases of the Lungs, and of the other Organs of Respiration.....	551	354
Diseases of the Heart and Blood-vessels.....	70	32
Diseases of the Stomach, Liver, and other organs of Digestion.....	92	70
Diseases of the Kidneys, &c.	13	8
Childbirth, Diseases of the Uterus, &c.	18	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	14	7
Diseases of the Skin, Cellular Tissue, &c. ....	5	2
Old Age.....	103	81
Violence, Privation, Cold, and Intemperance.....	88	30



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## A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

By SAMUEL WRIGHT, M.D.,

Physician to Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; Physician to the General Dispensary; Extraordinary Member, and formerly Senior President, of the Royal Medical, Royal Physical, Hunterian Medical, and Cuvierian Natural History Societies of Edinburgh, &c.

*Specific remedies, and routinism, treated of in last lecture; further observation thereon. Disadvantages of a materia medica too large or too small; anecdote in reference to one form of purgative; cases in which Epsom-salt is inadmissible; effects of its severe action; aloes as a purgative; cases in which it would be useful; others in which it might do harm; castor oil, when advisable; hydragogue cathartics, when to be preferred; when not to be given; sulphur, how useful in hemorrhoids; exceptions; expectorant remedies in chronic bronchitis of old people; expectorants in pneumonia; narcotics; diuretics, variously desirable; examples; formulæ; fastidiousness of patients about their medicines, how to be met; complexity and simplicity in prescribing; prescribing for symptoms, or their cause; example; pathological causes and symptomatic effects; purgative-taking.*

GENTLEMEN,—At our last lecture, our subject was "Specific Remedies": understanding as such, medicines that are capable of curing particular diseases, no matter what pathological exceptions these diseases might manifest. I told you that I knew of no such remedies, and that, in my opinion, the term *specific* ought to be blotted out of the vocabulary of physic. A reckless belief in the mystic powers of certain medicines has contributed most deplorably to weaken the rationality of our therapeutic system, and to lead to a conventional and dangerous *routinism*.

Happily, however, before the light of pathology, this cardinal error in our remedial code is fast disappearing; but it is not gone. You occasionally meet with a remnant of the old school, who will set about curing a simple chancre, in a scrofulous subject, by pouring mercury into his system until his teeth are loosened and nearly covered by his fungus-looking gums; another, who will tell you that digitalis, rightly administered, will cure any form of dropsy; another, who has known, or whose grandfather knew (which is about the same sort of thing), consumption cured under the sole use of Iceland moss and mare's milk; another, who considers steel filings superior to any of the modern chalybeate preparations; and others, again, with certain similar crotchets, which we need not further particularize.

The routinism of which I have spoken does not confine itself to a belief in the specific virtues, properly so called, of particular drugs, but extends itself into a sort of perpetual attachment to a certain set of medicaments to the exclusion of all others. In speaking upon this point, I am not intending to advocate an amplitude of *materia me-*

*dica*; our own is larger by much than it need be, but it is still possible to have one too small. This happens to the ultra-routinist. The number of remedies may be so reduced that their compendium shall rather be curious than useful. It has been said that a purgative, an expectorant, a sedative, a narcotic, and one or two other such representatives of particular classes of medicines, are all that are necessary in the art and science of prescribing. This is true enough, if *empirical* practice be signified, but it cannot be called *scientific*. It was upon this principle that the charlatans of old contrived to make a pharmaceutical establishment of their pockets! This exclusive remedial dealing often carries danger with it. It is bad enough to be drugged too much, but, under certain circumstances, patients may be dosed too little, or their medicaments badly chosen. The latter is, of course, likely to happen when the practitioner allows himself little variety to select from. Let me illustrate my meaning by some examples. I remember, many years ago, when in my pupillage, a man, by courtesy called a doctor, practised in the town where I resided. He had no qualification whatever, that I or anybody else could learn, but he ventured upon prescriptions by little and little, for which he was first *dubbed* by the populace, and subsequently by himself. At the time I speak of he was, *de facto*, a practising physician. This man had three purgatives, which, in fact, constituted nearly everything he prescribed. The first consisted of Epsom-salt, deprived of its moisture and rubbed down to a fine powder; the second consisted of the said Epsom-salt, rubbed up with cochineal for the sake of its colouring; and the third was a compound of the aforesaid Epsom-salt and infusion of roses. These three varieties of the selfsame material sufficed to ring any amount of aperient changes that might be asked for. No matter what a patient's ailment, one of these triplets was adventured upon him; if that did not answer, a second was resorted to; that failing, "why, then, the third was tried"—the "what then" it is not in my power to say.

This case, of course, is no *authority*—but it may be an *example*. From any source, you know, it is allowable that we obtain the latter. I am not prepared to say that in any of the cases in which the Epsom-salt was given, as above referred to, it did any harm; but, at least, there are many instances in which it might do. Suppose you were consulted by a leuco-phlegmatic patient, suffering from suppressed catamenia, and its frequent concomitants in such temperaments, extreme debility,

sympathetic palpitation of the heart, giddiness, faintness, &c. The bowels, perhaps, might be irregular, we will say costive, as usually happens from the sedentary propensities of such people. One of the indications to be fulfilled, of course, would be to increase the action of the bowels. Would you, for this purpose, give a good dose of Epsom-salt? "Why not," say you, "it is an active purgative, and it may rouse the dormant uterus?" True enough it is a purgative, and often a potential one, as you would probably discover if you gave it to that weak girl. Its hydragogue action would most likely be manifested in a complete temporary prostration of her vital powers, and it might happen that such prostration would be permanent, in the form of fatal syncope. I have known a moderate dose of sulphate of magnesia, acting *immoderately*, as it is apt to do, cause troublesome fainting, even in a stout man. Epsom-salt would not be an advisable aperient in a case like the one I have mentioned; but, if you were in the habit of using none other, of course you would use this—despite the consequences. This is but one amongst many evils that would be likely to befall you in practice, were you to prescribe only one form of purgative, and that the variety I have mentioned. In its place it would have been more judicious, *ceteris paribus*, to have administered a warm resinous cathartic, say aloes, in proper combination with other materials. This aloes is not a debilitant; it acts by stimulating chiefly the muscular coat of the intestines, without causing a discharge from their exhalents, and, on account of its sparing solubility, much of its action is manifested upon the rectum, for which reason it is valuable in certain atonic conditions of the uterus. In some cases its effects are extraordinary and most valuable, so much so that more than one patron of it, observing at random, and inferring without caution, has denominated it a *specific* in amenorrhœa. It is often an excellent remedy in such ailments, but it is *never more than this*. But you must not from these things conclude that aloes is a purgative always available and always to be trusted. Suppose, for the sake of illustration, you did so, and made it your constant remedy in costiveness. The first patient you prescribe it for, perhaps, suffers from piles, and, without telling you so, merely complains of constipation: you will probably occasion that man as much suffering as will give him cause to abuse you as long as he lives. Your next patient may be liable to *prolapsus ani*, in which case your favourite remedy will



again get you into disfavour; a third may be a female advanced in pregnancy, and abortion may be the result of the cathartic action you have induced; a fourth may have stone in his bladder, or stricture, or scirrhus of the neck of it, and terrible agony you would cause him were you to ply him with aloes.

In such cases as these, castor oil, as a milder and more certain remedy, would be preferable. But you would be ill-judged thenceforth to conclude that castor oil is an aperient to supersede all others. In some instances it is better than aloes, and in others, aloes is better than Epsom-salt; but in others, again, the last is preferable to either of the other two. In certain plethoric states, and in some forms of dropsy, the hydragogue action of sulphate of magnesia is invaluable. So also is it when feces get impacted in the bowels, and threaten to be immovable, unless a serous discharge into the intestinal cavity shall ensure their liquefaction. In these respects the other hydragogue purgatives, jalap, gamboge, and elaterium, are frequently of great value. But these have many limitations to their use. In weakly subjects they are dangerous remedies; in certain forms of heart disease, their energetic action would be likely to be fatal. If you give a hydragogue purgative at the time you want to promote secretion from the bronchial tubes, your intention will most likely be frustrated. I remember once seeing a case of pneumonia that was most satisfactorily advancing towards recovery by a profuse expectoration being critically established; but, on account of costiveness, a purgative was ordered of compound powder of jalap. The result was a most profuse watery evacuation from the bowels, which almost immediately arrested the secretion from the lungs. In consequence, these organs became excessively congested, and quickly too, and it was with the greatest difficulty that the patient was prevented asphyxiating.

Sulphur, again, is ranked amongst the aperients, and on account of its mildness is often used in hemorrhoids. I am not aware that in this affection it possesses any advantages beyond what are due to its laxative properties—yet it has more than once been lauded as a *specific* in piles. But sulphur acts as an *astringent with some people*; so that it not only cannot be a specific, but even as an aperient is not always to be relied upon.

Take the class of expectorants, and see how difficult it would be to adhere constantly to any one of them. Suppose you were consulted by an octogenarian, habitually asthmatic from dilated bronchi, and his cough was a little more troublesome, and his phlegm a little tougher, than usual; but no particular uneasiness beyond the lodgment of this phlegm, which generally happens to him in hazy weather. Ipecacuanha and antimonials would do little good, perhaps harm, in this case. Senega, squills, ammoniacum, compound tincture of camphor, and such like, would be your best remedies. But other instances might happen to you, in which stimulating expectorants of this class would prove hurtful. Take a case of pneumonia, for example: the secretion is scanty and tough, and the vessels of the lungs are loaded with blood: you want relaxation produced, so that the surcharged vessels may permit the watery part of their contents to dilute the thickened mucus of the bronchi, and favour its expulsion. Here your expectorants should be of the antimonial class. You remember the case of passive congestion of the lungs consequent upon hypertrophy of the right side of the heart, I showed you in the hospital a few weeks back. To have given that man a stimulating expectorant would have been to add to his cough and difficulty of breathing. Digitalis and ipecacuanha answered all the intentions we could expect to fulfil. Sometimes you meet with cases of cough from mere nervous excitement. The cough is dry and slightly painful, and the patient's voice is husky. The secretion is suspended from morbid irritability, and consequent tension of the lining membrane of the trachea and bronchi. Often, in such cases, expectorants prove useless, whilst a good dose of opium or other

narcotic, by subduing the irritability, causes the mucous membrane to relax, and a copious secretion is the result.

Talking of narcotics, these, again, are a class of medicaments that are not to be dealt with singly. It often happens that we want to procure quietude or sleep, but dare not administer opium, in consequence of an idiosyncrasy that prohibits the patient taking it. Then hyosciamus may come to our aid, or conium, or camphor, or lactuca, or the more potent cannabis or aconite.

Our list of diuretics is an ample one; but I doubt whether we should not be the worse for a reduction of its number. Taraxacum acts admirably with some people, whilst others it purges, and therefore affects their kidneys but little; and others, again, it sickens so that their stomachs invariably reject it. Often, when it fails, spartium will serve us in good stead. The bitartrate of potass is a good diuretic, but, of course, inadmissible when acids are contraindicated: then you may give carbonate, nitrate, and acetate of potass—the last producing nausea, as it often does, you may supply its place with spirit of nitrous ether. Digitalis is sometimes invaluable as a diuretic, but you must be careful how you give it to a patient with a dilated heart, or suffering from the congestion of debility. Squills is a good diuretic in many instances, but it seldom acts when given alone, and not unfrequently nauseates. There are certain atonic conditions of the kidneys, when turpentine and cantharides produce excellent effects; but, when these organs are irritable or congested, such medicines would be sure to produce distress, and might prove deadly.

I mention these things to you, gentlemen, that you may see the necessity of avoiding idle or prejudiced routinism. You can never commit yourselves to it without danger. That we may never slur over cases, or prescribe for them at random, or at avoidable hazard, I have purposely abstained from introducing any *formule* into my practice in this hospital. The absence of these things, which are only a *convenience* at the best, will often give me an opportunity, that otherwise might be wanting, of explaining my reasons for certain forms of prescription. Whether these explanations be right or wrong, your own observation and reflection, and the issue of the cases themselves, must determine.

Let me caution you not to attach other meaning than what I intend, to what I have said about routinism, and the danger of a too limited *materia medica*. It is a great advantage to have a variety of medicines to select from, but in this indulgence you may fall into the error of changing your prescriptions too often, or of prescribing too many things at a time. These are faults especially to be avoided. Whilst I would caution you against the prejudice of continuing a remedy which proves itself either useless or injurious, I would warn you against the presumption of exchanging one that does all that you can desire of it. The maxim of "letting well alone" applies to nothing more than to physic. Patients are sometimes fastidious enough to ask for a change of medicine when there is no necessity for such a thing. This is often a perplexity to the practitioner: for, if the caprice be not gratified, it not unfrequently happens that the patient takes an insurmountable dislike to his medicine, and will swallow no more of it; or, swallowing it strongly against his inclination, is nauseated in consequence. In these cases the best plan is, first to reason with your patient, and endeavour to persuade him out of his prejudice; if your patient be a woman, your task will not be a very easy one; this failing, it is not advisable to use authoritative expressions, to speak jeeringly, angrily, or in such wise, but to promise that some alteration shall be made, and then make it without compromising the chief features of your prescription. *Saccharum ustum*, and such like things, enable us often to meet the whims of nervous and fastidious patients without interfering with our own direct operations. I speak of these things

as well in their application to pauper as to rich patients. Of the two, indeed, I would rather humour the former—their prejudices are mostly natural, and education has not taught them better. Poor creatures, they have their constitutional likes and dislikes, and, when these are neither ridiculous nor difficult of gratification, a harmless *placebo* now and then may advantage your better remedies.

In all your prescriptions, avoid complexity as much as possible. It is seldom that you can do with a complicated formula what you cannot do with a more simple one. Simplicity is the very science of prescribing. The better pathologists you become, the more discreet you will be in the use of remedies. It is the exclusive symptomatologist who prescribes for everything that a patient complains of; it is the pathologist who reduces these many items of suffering to the *radical few* that constitute the *fons et origo* of the whole, and directs his remedy against *causes*. What endless aches and pains, for instance, may arise merely from constipation of the bowels, especially if it be attended with flatulence; and how many things you might be induced to give to meet these several exigencies! You might order fomentations or a stimulating liniment, to relieve the numbness, coldness, or cramps of the legs; a plaster or a blister, to quiet the dull heavy pain of that right side where the liver lies sluggishly; cupping or blistering, to the left side, where the heart seems oppressed, and perhaps intermits from sympathy, and from the mechanical obstacle offered by a stomach distended with flatus; plastering between the shoulders, to assuage the sharp pain there, catching the breath, and owing its existence to the state of the liver and stomach; a diuretic for the kidneys, torpid as they often are in such cases; something for the bladder, rendered irritable by pressure from a distended rectum; counter-irritants to relieve the spasm of the abdominal muscles, and carminatives to expel the wind from the stomach and intestines; a tonic to improve the appetite; a saline to cool the skin and quench the thirst; anything you can think of to remedy the headache; and a *purgative for the bowels*!

I have pictured to you an extreme case, not of complaining (for every symptom I have mentioned you may meet with as the offspring of simple constipation), but of variety of treatment; yet it is possible for you to fall little short of this, if you fail to look to the pathological cause from which symptomatic suffering may spring. And to prescribe for *one* effect is scarcely less scientific than to prescribe for *several* such, unmindful of the source to which they owe their origin. You offend not less in one case than in the other, against the *principle* of sound pathology and practice.

Make it a rule, as the items of pain and uneasiness are being detailed to you by patients, to refer them, if possible, to their cause, and against this direct your remedial efforts. As in the case of the constipation I have pictured, one leading form of treatment may supply the place of many lesser ones.

Avoid giving large doses of medicines when smaller ones will suffice. I do not mean such as are *homeopathically*, but *rationally* small. This caution especially applies to aperients. Purgative-taking, like dram-drinking, is a habit particularly prone to increase, and like this, also, it is a very bad habit, except when imperatively called for, as is sometimes the case with the habitually costive. Persuade such people always to accustom their bowels to act at the *same hour of the day*. This is the surest way to keep them in order. Immediately after breakfast is the best season. I have nothing further to say on this head, except to advise you, in ordering continuous medicines, to order also that they shall be *regularly taken at stated hours*. There is much importance in this.

OBITUARY.—At Nogent le Rotrou, Dr. Dencux, late Professor of Midwifery at the Faculty of Medicine.



DUMAS ON ORGANIC CHEMISTRY.  
No. VIII.ON THE BLOOD.  
(Continued from page 278.)

Blood, if heated to a temperature of 75° C., is instantly coagulated. When prepared in this manner, it is employed for different purposes. Thus, it is used with advantage in clarifying some kinds of liquids. Again, the blood of certain animals, in this state of coagulation, is employed in making what are called black-puddings; and this leads us to a question requiring some little explanation. For, while the blood of swine is in itself alone eligible for forming this dish, that of most other animals is quite unfit for it, and can only be rendered available by the addition of a certain quantity of milk, which conveys to the blood two essential materials: caseine and fatty matter. Now, does the blood of the pig contain these two principles in sufficient quantity, or will one alone of these ingredients suffice? This point is not yet perfectly clear.

The corpuscles, which are shown by the microscope to exist in the blood of animals, are of two kinds: the one, few in number, are colourless; the others possess a red tint. The corpuscles of all vertebrated animals are smooth and of a somewhat flattened shape, and capable of gliding easily one over the other. In man and in most mammiferae, they are circular and present the form of a disc, somewhat puffed out along the edge. They possess great elasticity and flexibility. By compressing a drop of blood beneath the microscope, on its first escape from the vein, we find these corpuscles flattened, but they immediately regain their form when the pressure ceases. The flexibility of the globules is easily perceived, if we examine them within the circulation of a living animal. This experiment is very readily made in the frog, in which the corpuscles are large and elliptical; we here see the globules become elongated in the narrow passages, and, should they meet with any obstruction, they assume a wedge shape, but subsequently regain their original contour. They are invariably heavier than the serum and fibrine of the blood. Although the relation of weight is not constant, inasmuch that we find them more easily precipitated in some cases than in others, yet the more developed and the larger they are, the greater is their tendency to become deposited. Thus, whilst in the blood of the mammiferae, after its agitation, they sink with very great difficulty, we invariably find them rapidly thrown down in that of the frog.

When examined in a perfectly fresh state, these globules mostly appear homogeneous. In the blood of some animals we perceive, soon after its escape from the body (and in others not until after a longer interval), a central obscure point, which is at all times rather difficult to discover, but especially where the globules are very small. M. C. H. Schultz has made some valuable observations on this subject. In examining the blood of a salamander, asphyxiated by carbonic acid, he found the globules of a very deep colour, more marked in certain points, so that they presented, as it were, a speckled aspect. When agitated with oxygen they lost this dark tint, and became perfectly transparent. The question then comes—Does this central obscure point depend on a fixation of carbonic acid which is displaced by the oxygen? Such would appear probable, especially when we bear in mind that this central stain is not perceived while the blood is in the circulatory system. Still it is possible, that it may be owing to the existence of minute fibrinous deposits.

The corpuscles of the blood preserve their form for a long time, when kept in albuminous liquids or in serum, yet they always sink down a little; they should, therefore, be examined immediately, and that while contained in their serum. If water be added, the globule becomes distended into a smooth spheroidal shape; it is rendered paler, whilst the central stain becomes more and more apparent. After a little time it is so transparent and colourless, that this central spot seems merely surrounded, as it were, by a pale areola. This stain no longer seems to occupy the centre of the globule, but to

revolve upon the internal wall of the sphere. When the cell becomes broken down by the prolonged action of the water, it sinks around this central nucleus, under the form of a slight band. If blood be mixed with too large a quantity of water, these phenomena take place so rapidly as to be inappreciable, the globules becoming immediately broken down.

The blood of the frog forms the best medium for observing these characters, of which we have just been speaking, and which would seem to indicate that the globule is formed by a membrane carrying in its interior a nucleus,—which membrane surrounds and encloses the colouring matter which exists in a state of solution in the interior of the vesicle. Weak solutions of albumen and of the salts of the blood act in the same way as water, but with a rapidity proportioned to the extent of the dilution. Acetic acid also has a similar effect, but is much more rapid in its action. So, also, with regard to oxalic, phosphoric, and lactic acids. Concentrated solutions of chloride of sodium, carbonate of potash, carbonate of ammonia, and sal ammoniac, have no further action on the globules than that of causing them to contract and sink down: thus, those corpuscles which have been distended by water, if not too much exhausted by its action, are found to regain their original flattened shape when plunged into concentrated saline solutions, or at least they acquire an irregularly retracted globular form. They are always, however, more transparent and thinner.

Those substances which are capable of causing the coagulation of the albumen and of the globuline, contained in the cells, invariably destroy the form of the globules; such are, sulphuric and nitric acids, alum, alcohol, and chlorine. In like manner, those metallic salts which form compounds soluble in the blood deform the globules, and often distend them in the same way as water. The alkaline bases completely dissolve the globules; coneine acts in the same manner, as also does ammonia. Hydrochloric acid likewise totally dissolves them, forming a gelatinous mixture.

The form and size of the globules of the blood differ in various animals: in almost all the mammiferae they are circular; in other animals they are elliptical.

Animals in which the globules are circular:—

	Diameter of globule, calculated by frac- tions of a millimètre.
Man .....	1.120
Monkey tribe, dog, rabbit, pig, hedgehog, guinea pig .....	1.150
Ass, cat, grey and white mouse .....	1.170
Sheep, horse, mule, ox .....	1.200
Stag .....	1.218
Goat .....	1.288
Snail .....	1.100

Animals in which they are elliptical:—

	Large diameter.	Small diameter.
Dromedary .....	1.125	1.220
Osprey, pigeon, turkey, duck .....	1.75	1.100
Chicken .....	1.80	1.100
Peacock, goose, raven, spar- row, goldfinch .....	1.86	1.100
Titmouse .....	1.100	1.150
Land tortoise .....	1.48	1.77
Viper .....	1.60	1.100
Adder .....	1.50	1.100
Grey lizard .....	1.66	1.110
Salamander .....	1.30	1.55
Common frog .....	1.45	1.75
Minnow .....	1.75	1.125

Having examined the globules of the blood in the organized state, we will now endeavour to give an exact account of the materials composing them. We find, then:—1. The exterior envelope of the globule. 2. The materials contained within the capsule: that is to say, the albuminoid matters, the red colouring matter, and the nucleus. Nothing is more easy than to separate the envelope and nucleus of the blood globule: for this purpose, we have merely to take the blood, perfectly defibrinated by beating with a whisk, and throw over it a large quantity of water. The process of infla-

tion, which takes place, soon ruptures the corpuscle; its contents are dissolved in the water, and the nucleus is deposited along with the envelope. But it is very difficult, not to say impossible, to separate these two bodies, which offer all the outward characters of fibrine as obtained by beating the blood. No analysis having yet been made of the elementary constituents of these bodies, it is impossible to speak more decisively as to their composition; but it would be interesting to ascertain, whether the envelope does not approach more in nature towards the epidermic tissues, in which case the proportion of carbon would be less, and that of nitrogen greater, than in albumen and caseine.

It is a matter of some difficulty to render a complete definition of the nature of those materials, soluble in water, which are contained in the globules of the blood; opinions are divided on this subject: some chemists regard them as pure albumen, others as a peculiar matter, which M. Berzélius has denominated *globuline*: but which M. Lecanu considers as albumen which may have become coagulated during the preparation of the colouring matter of the blood.

Globuline, like the matter of the crystalline lens, bears a great resemblance to the caseine extracted from milk. It is easily obtained by digesting in water, containing carbonate of lime or baryta suspended in it, the albuminous parts of the blood which have been precipitated by sulphuric acid, and washed in sulphuric alcohol. The filtered residue is reacted on by alcohol, which dissolves the globuline.

M. Mulder, who has performed some analyses of the sulphate of globuline, states the following as the result of his observation:—

Carbon .....	4.11
Hydrogen .....	7.17
Nitrogen .....	15.70
Oxygen .....	20.52
Sulphuric acid .....	2.50

By reducing these numbers to the simple organic elements, we shall have:—

Carbon .....	55.5
Hydrogen .....	7.3
Nitrogen .....	16.1
Oxygen .....	21.1

*Hematosine*.—The name of hematosine has been given to the colouring matter of the globules of the blood. We have already spoken of this substance while in its state of combination, and have now merely to consider it in an isolated condition; but, before doing so, we must cast a rapid glance over the properties which it presents at the moment that the globule, being ruptured by the action of the water, gives issue to the colouring matter, as well as to the globuline, the caseine, or albumen; and when, whether of its own nature or by the aid of the substances with which it is associated in the globule, it becomes dissolved in the water. The solution of the colouring matter of the blood, when mixed with the albuminous materials with which it is combined in nature, acquires by its agitation with oxygen a tint approaching that of arterial blood, but never equalling it in intensity, by reason of the modification which it has already undergone. We may evaporate this solution at a temperature not exceeding 50° C., without causing any further change in it; it then leaves a residue of an almost black colour, capable of pulverisation, and which, when thus desiccated, may be kept for several hours at a heat of 100° C., without destroying its solubility in water. By subjecting this solution to a temperature of 75°, it is coagulated much in the same way as serum; if the solution be very concentrated, the coloured liquid which surrounds the coagulated mass separates from the latter, and coagulates in its turn, leaving a liquid less deeply coloured and of a yellowish tint.

Chlorine decolorises the solution of this matter. Alcohol coagulates it in the same way as heat. The acids act in a similar manner. The alkalis, and also the acids, form combinations with it. All these characters are, as we see, perfectly similar to those of defibrinated blood.

Some chemists give to this body the name of *hemato-globuline*. M. Berzélius regards it as a veritable combination; I think, however, that we should rather consider it as a simple mixture, which



partakes of the properties of its constituents—globuline, caseine, albumen, and hematosine. Hünefeld states that we may readily obtain non-coagulated hematosine by treating the clot of blood by ether, thoroughly freed from all trace of acid, and from alcohol; for this purpose, the coagulum is to be cut into thin slices and suspended in ether, which becomes charged with the hematosine, and assumes a red tint; the colouring matter is then obtained as a red deposit, but combined with a portion of fatty matter, which is taken up from the clot by the ether. If this ethereal solution be left to itself, the dissolved hematosine in a short time passes spontaneously into an insoluble state, and is at first precipitated under the form of a powder, but before very long it becomes coagulated into a solid mass. Alcohol immediately coagulates the ethereal solution.

Acetic and phosphoric acids, if diluted with three times their weight of water, do not precipitate this solution; but the other acids throw down the hematosine as a brown substance, and form combinations with it. MM. Berzélius and Simon have attempted, though unsuccessfully, to prepare hematosine in the manner above detailed.

We have now to consider the nature of coagulated hematosine, in that state in which we find it after its coagulation and separation from the albuminoid principles of the globules. Various chemists have endeavoured to isolate the colouring matter of the blood, but not with much success. M. Gmelin was one of the first who observed that blood, when coagulated by alcohol, and afterwards treated by this fluid in a boiling state, in excess, yielded to it its colouring matter; but this method does not give it in a state of purity. He afterwards proposed to coagulate the blood by dilute hydrochloric acid; by reacting on the coagulum by alcohol, the hydrochlorate of hematosine is dissolved. M. Lecanu has also performed a numerous and interesting series of researches on the blood, and has succeeded in isolating this principle in a very perfect manner; but, as we have already said, the colouring matter thus obtained no longer offers the properties which it manifests in the globule where it exists in a non-coagulated state. There is as complete a change in its regard as that which is effected in the albuminous liquid when coagulated by heat or by acids; in a word, it passes, by the treatment necessary for its isolation, from the state of an *organized* to that of an *organic* matter. We shall continue this subject in our next lecture.

## ORIGINAL CONTRIBUTIONS.

### DR. BUSHNAN'S VISIT TO DIEFFENBACH.—NEW AND SUCCESSFUL OPERATIONS FOR PSEUDARTHROSIS.

#### LETTER I.

[To the Editor of the Medical Times.]

SIR,—Several years ago I translated Dieffenbach's "Surgical Operations for the Restoration of the Nose" (Highley, 1833); but it had not been my good fortune to meet the celebrated professor until the last autumn, when the state of his health and severe rheumatic pains induced him to repair to the baths of Wiesbaden, where I was residing. I soon had the satisfaction of making his personal acquaintance; and then it became a matter of great regret that I had so long neglected to do so. But I will not here stop to tell of the man, nor of the operations which he performed while at Wiesbaden; for although he came there for relaxation, and for relief from the pressure of an enormous practice, little was allowed to him. No sooner was his presence known than crowds flocked to him from the surrounding neighbourhoods. The surgeons of the hospital applied to him to perform their operative duties; the lame and the crippled from all parts sought his aid; and patients of all nations who had resorted to the baths, English and French, Russian, Pole, and German, forsaking their pool of Bethesda, entreated him to relieve their stiffened and distorted joints. Thus I had many

opportunities of witnessing his practice; but I longed to see Dieffenbach in his own "klinik"—his own hospital, in the theatre from whence his name has become one of European celebrity, from whence so many thousand unfortunates of all nations and of all languages have been yearly dismissed, relieved of the greatest disfigurements and deformities, and cured of the most grave diseases. I desired to see the great operator in the theatre, where, emancipating himself from an incubus of surgical absurdities and pedantic dogmas, he had, with a few simple scalpels in his hand, arrived at greater results than any other surgeon has approached in any age or any country. And so I gladly availed myself of Dieffenbach's invitation to visit him at Berlin; and, having ascertained from him when his klinik would be in its greatest activity, I then repaired to it. And here I first learned how very few instruments, and of what simple construction, are required in the hands of such a man to perform the most formidable operations. Some surgeons almost require that the knife itself should operate, and think their share of the business merely consists in applying it to the part; while the chief endeavour of the instrument-maker seems to be, by an ingenious combination of wheels and springs and guides and guards, to enable an unqualified and bungling operator to play at surgery with as little loss of life as possible. But not so Dieffenbach: he never commits the safety of a patient to the mechanism of an instrument. His hand, guided by a master-mind and armed with a simple scalpel, is quite sufficient; and thus, whether we see him perform the most inconsiderable or the most formidable operations, all seems so easy, so simple, so little calculated to inspire dread, that we are tempted to think we could do the same ourselves and with the like results. There is a total absence of all parade, no dread array of instruments of every form and shape and size; no fuss, no bustle, no display, as with the older surgeons; but a calm and quiet confidence that convinces you that with Dieffenbach has begun a new surgical era, characterized by the abolition of all complicated apparatus, and, founded upon a sound physiology, a greater amount of success than has hitherto been attained.

I am much tempted to write the biography of Dieffenbach—a strange, eventful, and instructive tale, as told in the passages of his life, as he and others have related them to me; and I may probably do so in the edition of his great work on Operative Surgery I am now preparing for the English press. Nothing is more useful than the biography of a great man, stimulating us, on the one hand, to imitate the deeds it records, and warning us, on the other, to avoid those imperfections of character which it sometimes displays; but, to be beneficial, it should exhibit all the phases of a man's character and career; it should "trace a feeling in each footstep," as disclosed by Sallust in his "Cataline"; and this is not always well to do, nor expedient to be done, in the lifetime of the subject of our memoir. But to return from this short digression. Dieffenbach's mode of lecturing is purely clinical, and therefore most instructive, particularly to students who have acquired some knowledge of the principles and leading maxims of surgery. Again, it is altogether extempore; and, before arriving at his lecture-room, he does not know upon what new case he may have to discourse. About 150 students attend his lectures, in a large and well-lighted theatre, the area of which is occupied by the professor, any foreign visitor or private friend, and the clinical clerks. A patient is introduced either in his bed or otherwise. If a new case, Dieffenbach examines it, or desires an advanced student to do so and briefly to describe it. This done, Dieffenbach makes his remarks upon the disease, describing at length its nature, its prognosis, diagnosis, and pathology; the method of treatment to be pursued; the opinions of others concerning it; detailing his own views, and, if these differ from those of others, explaining why they do so. And all this enriched with a mass of

knowledge and information delivered in the most terse language, alike distinguished for its energy and its truth. This over, Dieffenbach proceeds to operate—for no cases are produced in the theatre but those who are to be, or have been, operated upon—or, if the nature of the case permits, he desires an advanced student to operate, while he himself superintends, helping, aiding, and instructing him. The operation finished, and bandages, &c., applied, the bed is removed, the blood cleaned from the floor, and another patient brought in; and in this manner I have seen five operations in one sitting, namely, hernia, vesico-vaginal fistula, two cases of clubfoot, and an amputation. I know no surgical hospital where so good a mode of instruction is adopted, and none where, while the poor receive more advantages, the pupil is better, if indeed so well, taught. And I cannot help thinking that the reputations of many English surgeons would not suffer, while their lectures would be much more numerous attended, if they would follow Dieffenbach, and occasionally change places with their more advanced pupils, letting them operate in public, while they aided and guided and encouraged their performances. It may be objected, that patients would not like to be made the subject of a lecture while lying on an operation-table, and their diseased parts exposed to so many curious eyes; and still less would they wish a pupil to be the operator; but a little consideration will show that the lecture and explanation of the professor must generally inspire a great degree of confidence, and his presence and sanction be a sufficient guarantee that the operation was adequately performed.

Among the earliest operations I witnessed was one for pseudarthrosis, or false joint, caused by a disunited fracture. This is entirely a new operation, and hitherto has been performed only by the great master who proposed it. In each case, too, it has been perfectly successful; and when I consider its great importance, and the difficulty surgeons sometimes experience in causing, under certain circumstances, the union of fractured bones, and the formidable nature of a false joint, I congratulate myself on being the means of making known to the English profession a certain and simple means by which to remedy so serious an evil. I shall relate three cases. The two former were detailed to me by Dieffenbach, the latter I witnessed.

CASE 1.—In the winter session of 1845, a woman, thirty-three years of age, presented herself at the klinik. She had broken her thigh fifteen months previously. On examination, the fractured limb was found to be nearly three inches shorter than its fellow; much withered or reduced in size, except at the fractured part, where there was a soft, circumscribed, and considerable swelling. The limb was movable like the end of a flail, and with difficulty she dragged it after her as she moved on crutches; it was not only useless, but a positive inconvenience, causing her frequently to fall, and to stumble at every threshold; the poor woman earnestly desired its removal. There was some soft callus between the fractured bones in which they moved as in a capsule, but no bony deposit. Dieffenbach caused the absorption of this gristly matter by rubbing the ends of the bones together, and thus setting up inflammatory action; and, this object effected, he attempted to produce bony union; not, indeed, by the usual and very uncertain routine of very close and accurate contact—removing the ends of the bones by excision, escharotics, or setons. His experience of gunshot wounds had taught him, that when foreign bodies, as bullets, are lodged in bones, a great quantity of healthy and hard callus is always poured over them; and the experiments of Duhamel and Flourens had established the fact, which it remained for the genius of Dieffenbach to turn to account. So, having pierced the leg with a small scalpel down to the fractured bones, with a common gimlet he drilled holes through each end of the bone, and about half an inch from



each fractured extremity. Into each of these holes he introduced a small ivory peg, the same size as the gimlet, and strongly wedged them with a few strokes of a hammer. The limb was then extended, placed in splints, and carefully bandaged. In ten days it was apparent, from the less degree of mobility between the ends of the fractured bone, that healthy callus had been thrown out; and so the ivory pegs were removed, and the wounds allowed to heal. In three months from the date of the operation, the patient walked without crutches, and was dismissed cured.

CASE II.—A strong hardworking man, aged thirty-one, had a year previously broken his right humerus, at about its middle part, while employed on a railroad. No union had taken place, and the limb was useless. The same treatment as in the former case was had recourse to: the bones were bored with a gimlet, small ivory pegs introduced, and at the end of ten days removed. In the course of treatment, however, Dieffenbach was not satisfied with the rapidity of the progress towards bony union, he therefore introduced smaller pegs for a few days; and so successful did the case prove, that, twelve weeks from the first introduction of the pegs, the man was in a condition to resume his employment.

CASE III.—I had the satisfaction of examining this patient and witnessing the operation. He was a robust and apparently healthy man of forty years of age, who, eighteen months previously, had met with an accident upon a railroad, by which he was much bruised and his left humerus fractured at the insertion of the deltoid. The limb was perfectly useless and much withered; the false joint was capable of being moved in all directions, giving little or no pain. The limb bore the marks of setons and issues; and indeed the man had undergone a regular routine practice, under the care of the surgeons whom he had consulted. The operation was rapidly performed, as in the preceding cases, and the limb bandaged and placed in a sort of cradle. At the end of a week there was much swelling of the limb and pain in the fractured parts, which were not as movable as before. On the twelfth day it was still more difficult to move the parts, and on attempting to do so it appeared as if it were a very stiff joint. Then the pegs were removed, and I did not again see the case. In my next letter, I doubt not, I shall be able to report most favourably of it, and ultimately to assure the medical public of its successful termination.

Let us compare these satisfactory results with the uncertain and unsuccessful practices which have hitherto, in similar cases, been resorted to. All are agreed as to the difficulty and danger and want of success in the operation recommended by Celsus, and practised in modern times, of sawing off the ends of the bones. Dr. Physic's proposal to introduce a seton between the fractured extremities is recorded to have been oftener unsuccessful than otherwise. Cutting down to the bones and rubbing them with caustic potass has signally failed; and indeed it may be said, that hitherto amputation has been the only certain cure for pseudarthrosis. Dieffenbach's operation, on the other hand, is neither dangerous nor difficult, nor painful; and it may be performed, with every prospect of success, by any one with sufficient anatomical knowledge to enable him to avoid the great vessels and nerves of the limb. If I have not sufficiently explained it, I shall be happy to give all further information in my power; and I trust soon to see the experience and recommendation of Dieffenbach verified in England.

I am, &c. &c.,

J. STEVENSON BUSHNAN, M.D.,

Fellow of the Royal College of Physicians of Edinburgh.

Wiesbaden, Duchy of Nassau, January, 1847.

After a brilliant anatomical *concours* at the Faculty of Medicine, Dr. Gosselin has been unanimously elected "chef des travaux anatomiques," a situation which has been successively held by Dupuytren, Bécclard, Breschet, and Denonvilliers.

## REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 282.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

CRIMINAL LUNATICS.

In the case of Greensmith, who strangled four of his children, it appeared that he laboured under this *delusion*, that it was better for him and for his family that he should destroy them, and he himself executed for the act, rather than let them go to the workhouse.

After destroying two of his children he went down and sat by the fire, considering whether he might not be capable of maintaining two of them, and he took a most affectionate leave of each of his children before he strangled them. Here there was no rational motive—no prospective advantage—no anger; the deed was caused by, and was the act of, delusion.

Mr. Justice Park, in summing up, said—"Nothing could be more contrary to law than to infer insanity from the very malignity and atrocity of the crime; it was true that such crimes could never be committed by men who were in possession and control of a right reason and a proper mind; but it was his duty to inform the jury, that the complete possession of reason was not essential to constitute the legal, any more than the moral, responsibility of any man: it being merely necessary that the party should have sufficient knowledge and reason to discriminate between right and wrong. The prisoner was found guilty and sentenced to death. Greensmith's sister had previously laboured under homicidal insanity, and Dr. Blake understood that the grandmother exhibited the same infirmity. After the murders he was composed, vigilant, and melancholic; he had a monomaniacal cast of eye, regarded his execution without emotion, but shed tears when asked if he had been attached to his children.

Greensmith was predisposed to insanity, and the loss of his wife, together with pecuniary distress, brought on the delusion under which he sacrificed the lives of four children.—For a full account of this case see *Med. Chir. Rev.*, p. 84, vol. viii.

To absolve from responsibility, the defect in mind must be unequivocal, and mere dejection of spirits, or eccentricity, will not be sufficient for such a defence. Thus, William White murdered a Miss Maria Bally in the presence of her pupils. She had forbade his addresses. Insanity was the defence—failed—found guilty—executed. Here the witnesses merely deposed to a dejection of spirits previously to the murder.—*Collinson*, 474.

It has been held that, to render a criminal irresponsible, it must be proved that the act was irresistible; but it would be extremely difficult to point out how this is to be demonstrated!

Who can reconcile the justice of this case, which occurred in 1819? A young man, of weak intellect and strong animal passions, was warmly attached to a female superior in station to himself, and was rejected. This caused ungovernable feelings, and he determined on her murder. He had, at the same time, some religious ideas, and it occurred to him, that by putting this woman to death he would send an unprepared sinner into eternity, but the impulse to shed blood had taken irresistible possession of him. There was a child of whom he was very fond, and had often caressed, who, he concluded, had fewer sins to answer for, and this child he determined should be the victim. He murdered it, and then gave himself up to justice. He was tried, condemned, and executed, in the county of Surrey.—See *Beck's Med. Jur.*, 5th ed. p. 435, 1836; and *Quart. Rev.*, vol. xii., p. 219.

The act itself, a sufficient proof of insanity, was subsequently strengthened by insane notions and actions, and there was absolute raving even on the scaffold. This case must ever remain a blot on the legislation of this country.

Another case, which occurred in Scotland in 1831, should also be held up as a beacon to warn both judge and jury. I allude to John Howison, a beggar, who in walking through a village with a stick in his hand, asking alms, entered the cottage

of Widow Geddes, and soon after came out and ran away; it was subsequently ascertained that he had murdered her with a spade. He was apprehended and denied any knowledge of the murder.

On several examinations by Dr. Spens and Mr. Watson, they discovered no indications of insanity, no hallucination, but he appeared to be of low and weak intellect, and to be possessed of a great deal of cunning. On the trial it was proved by a woman with whom he had lodged six years previously, that when she first knew him he was a hawker of small wares, clean in his person, and like other people. He then left her to go to England, where he remained till within the last two months. His appearance now was that of a beggar, filthy in his person and peculiar in his mind. He said that he had had a fever in England, but no correct account of this could be obtained. She mentioned some of his peculiarities: he was solitary and silent; his only companions in his lodgings being a cat and a child, and he fed both before eating his own meal. He was very superstitious, salting his bed and head, brushing away the flies with his hand for hours together, and performing the same actions when there were none, even when his landlady told him so. He had an almost incredible appetite for food, usually devouring half a peck of potatoes at a meal, with one or two pounds of haddock's liver, almost raw and generally filthy. After this he would eat two or threepence worth of bread. He habitually wounded his hands, wrists, and arms, with needles and pins; and if he went to bed without his weapons, he rose and procured them. In this state he would sally forth, brandishing a stick, and playing extravagant tricks, till the neighbours interfered. He would suck the blood from his wrist after every two or three mouthfuls of his food, and when asked why he ate his meat so raw, said he liked the blood.

He had taken a fancy to become a Quaker some weeks before the murder, and attended the meetings, paying, however, no respect to the worship, but muttering to himself, and even then pricking his body with pins and needles. On one occasion he violently demanded instant admission into the Society. He had, moreover, occasionally a painful and uneasy feeling in his head.

Howison was convicted, and on making application to the Home-office for the privilege to adduce additional proofs of his insanity, it was denied. These proofs consisted chiefly in unprovoked and boisterous acts of violence immediately previous to the murder. The evening before his execution he stated that he had committed eight murders, not one of which had ever been heard of, and could not have occurred without being known. His voracious appetite continued until his execution; and his uniform answer, both before and after trial, was, "nobody saw me do it."—See *Edinburgh Medical and Surgical Journal*, p. 45, vol. xxxviii.; also *Beck's Med. Jur.*, p. 437, fifth edition.

The insanity in this instance consisted in a sudden morbid influence to commit murder, and there was the absence of motive; and the unsound state of mind was confirmed in several particulars which it is unnecessary to recapitulate, but was particularly evidenced in his wish to change his religious principles and forms, and especially in the folly of expecting to be received into the Society of Friends, when paying no respect to their worship, and not even decorously conducting himself before those who pay so close attention to form; and then his demanding from them violently that which they only accord with the greatest hesitancy and most prudent circumspection, all prove at once his manifest inconsistency in such conduct.

It was never known where this unfortunate man had been when in England; and, although he himself said he had laboured under fever when there, it is very possible that he may have been under confinement for madness, and may, indeed, have actually made his escape from some lunatic asylum. Altogether this case is far from satisfactory, and reflects no credit either upon the medical men, the judge, or the authorities at the Home-office.

I cannot here consistently omit a case which occasioned much excitement in Paris: it is that of Louis Papavoine, a young man, who was always melancholic, and suffered from the hallucination



that his father was not dead but buried alive; and his conduct occasionally so frightened his mother that she avoided eating with him.

Business called him to Paris, and it is to be remarked that amongst his baggage he packed up *two common table-knives*. He transacted his business in Paris, appears to have been very recluse, and on the evening of the fifth day he went to the Forest of Vincennes. Here he met a female walking with her two boys, of the respective ages of five and six. A young woman walking by at the time, noticing the children, wished to caress them, and then continued her walk. Papavoine followed her and said—"Do you know whose children you were caressing?" She replied, "We may caress children without knowing whose they are." He then left her and went to a cutler's in the neighbourhood and purchased a knife; he then returned, and with a pale and haggard countenance met the mother, and said to her, "Your walk is soon finished," and then plunged the knife into the breast of one of the children. The mother immediately attacked him with her umbrella, but he succeeded in stabbing the other child; both died, and the assassin escaped into the wood, and was arrested some hours after, having just previously asked of a soldier if his clothes were soiled.

On examination he denied the crime, and persisted in it for a month, when he said he had important disclosures to make, but only before two Royal Princesses. This being refused, he said, he had committed a mistake in murdering these children, having intended to destroy those of the Duke de Berri. This was considered as an artifice to prove his insanity. He now became very furious in prison, got out of bed at night, searched for a knife, and even attempted to set fire to his bed. His keeper having on one occasion momentarily left a door open to admit fresh air, he escaped, and rushed into a room containing several prisoners, snatched a knife, in the hands of one of them, gave him three wounds, and was only prevented murdering him by the interference of those present.

The public prosecutor saw in all this "a criminal who sought in new crimes a justification of previous guilt." He was tried on the 25th of Feb., 1825, on two indictments—for murder, and for an attempt to kill.

At the bar he was calm, but sad; confessed the murder, but said he was not himself; that it was unpremeditated, that he did not know the infants, and that if he had designed to kill them he would have carried with him the knives he had brought from the country; that he was insane when he committed the act, but that on its execution he became conscious of its enormity. It appeared that his father had been subject to paroxysms of mania.

As to the attack on his fellow-prisoners, he stated, he was in a state of fury from confinement and bad treatment. His conduct in prison was such as to frighten the soldiers who acted as his guard; and the keeper said he had never seen a prisoner's hair in such a state—it literally bristled.

His advocate, M. Paillet, dwelt on his previous illness, his misfortunes, his hallucination, the apparent want of premeditation, and considered this a case of monomania without delirium, and thought it would be necessary to confine him, but not to send him to the scaffold.

In half an hour the jury brought in a verdict of guilty on both indictments. He was condemned to death, and was executed on the 19th of March. —*Beck's Med. Jurisp.*, p. 440. *Causes Célèbres*, tom. i., pp. 203, 290.

Now, in this case the father had been insane, and when this young man left home his mother wrote to Paris, to request that he should be watched. On the day of trial he made an ingenious defence, though not strictly correct, but this afforded no inference of his sanity a month previously. We know he was the subject of hallucination, although no proof existed of his delusion being the immediate cause of the act. It is a fearful responsibility a person undertakes who defines the exact degree of insanity necessary to exculpate a criminal; and in such cases there must necessarily be considerable doubt, and hence Esquirol considered Papavoine was responsible when he committed the act, and Georget thought him insane.

I am disposed to agree with M. Georget, that partial insanity excludes all responsibility from the affected individual for his actions; and Dr. Prichard leaning, I believe, somewhat to this view, says, p. 174, partial insanity, "or monomania, is generally accompanied by the state which I have described as constituting moral insanity," and he considers, while too much attention has been given to the particular error which clouds the understanding, or to the disordered state of the intellect or judging and reasoning powers, too little notice is withheld from the moral state, the disposition, and the habits. Pinel gives the case of a boy who was encouraged by his mother in every caprice and passion; he was most violent when opposed, and even put to death any animal that displeased him. He was always engaged in quarrels, and at last actually murdered a woman who had offended him. He was tried, this evidence adduced, and he was sentenced to perpetual imprisonment in the Bicêtre.

Every person proved insane is considered so while there is a probability of a relapse; and it is even questionable whether a person can dispose of his property or perform civil acts during the placid intervals, as some even doubt the existence of a perfectly lucid interval; and yet, if during the same period a man commit a criminal act, he is responsible. Now, it ought never to be forgotten that in homicidal insanity the lucid intervals are often of great length, but cerebral irritation still remains, and from some accidental excitement this dangerous tendency often irresistibly and suddenly manifests itself, and that even from a very simple cause, such as an extra glass of wine, or from some slight thwarting or provocation. Of course the shorter the interval between the paroxysms the less doubt can arise as to the irresponsibility of such a maniac. The insane are never exempt from a liability to paroxysms, and generally it will be found the crimes they commit are from sudden provocation.

Should any person who is insane, whether under Commission, the inhabitant of a lunatic asylum, or even if at large, be held responsible for his crimes? Should not every lunatic necessarily be considered irresponsible? Who is to decide that because an insane man may be capable of dictating a letter, or of taking part in an ordinary conversation—perhaps even with great subtlety and ingenuity—who can decide that he is consequently the master of all his actions? Who can determine when a man has been once dangerous, however rational he may appear either before or after the murder he has committed, that he did not at the time suffer from a paroxysm? Has it not happened that the very execution of the wish has, on its completion, restored the maniac to his senses? Is not the same often seen in drunkenness, where sufficient has been taken powerfully to excite but not to deaden the feelings, that a man in his drunken paroxysm stabs another, or puts a bullet through him, and seeing his victim fall, he is so horrified thereat that he immediately becomes sobered? We know how prone maniacs are to paroxysms; we remember how violent are the antipathies they often take, frequently at the first glance; and we cannot forget that a lunatic who holds erroneous opinions, on one point cannot be expected to exercise so sound a judgment on other matters as we reasonably demand from a sane man.

It really seems a mere mockery of justice for a judge and jury to investigate the degree of insanity in criminal cases; what they should do is to ascertain whether the criminal is or is not insane. They never can, and they never will, be able to distinguish between the reasonable irresponsibility or the just responsibility of a homicidal lunatic. Evidence, both general and medical, should be heard, and the jury should decide as to whether the prisoner was or was not of sound mind; and if at all insane, and this can be proved, the jury should so find.

No person, however, should be at large after committing a serious crime, for which, if sane, he would be punished. As the law now stands it is enacted, "That in case any person charged with treason, murder, or felony, proving to be insane at the time of commission of such offence, be acquitted,

the jury are to declare whether he was acquitted by them on account of insanity; and, if they so find, the Court shall order him to be kept in custody till his Majesty's pleasure be known."—*Stat. 39 and 40 Geo. III., c. 94, s. 1.*

Surely here is power enough for a humane judge; the law requires no alteration; the act is amply sufficient to protect the public, and to prevent the lunatic from again committing serious crimes; and no one can doubt, that all persons who commit a deed worthy of death should be confined for life, even though subsequently becoming sane, because it is well known that relapses not unfrequently occur. Such confinement is not for punishment, but for the public protection; and it yet possesses the advantage of operating as a check and as an example: no person would voluntarily enter any asylum as a prisoner for life.

We consider that the judges have been in error in their charges to the jury, and that it has been in their power to point out with greater comprehensiveness the various shades of insanity; we all know how much depends upon the charge, and we would strongly recommend the judges, ere trying another case where there is the least doubt respecting the prisoner's state of mind, to visit lunatics themselves, and there learn the acuteness, the subtlety, the design, the genius, so often manifested by them.

Should a person be left for execution when insane, even though the act he committed cannot be proved to have resulted from his hallucination? How much uncertainty there usually is in such cases. Although such lunatics may appear talented, nay brilliant, they may even "mock the wisdom of the wisest in judicial trials," and yet be very weak in judgment; and, if this judgment is impaired, how can such a man be accountable? Lord Erskine, in Hadfield's case, said—"In all the cases which have filled Westminster Hall with the most complicated considerations, the lunatics and other insane persons, who have been the subjects of them, have not only had the most perfect knowledge and recollection of all the relations they stood in towards others, and of the acts and circumstances of their lives, but have in general been remarkable for subtlety and acuteness." Why should we distinguish between civil and criminal responsibility? Surely the question may be raised, if a man is not capable of performing a civil act, if his judgment is so defective that he is considered incompetent to perform a civil right, how can such a person be responsible for any other act? Why should he be held *non compos* in one court, and be condemned as of sound mind under another jurisdiction? A hundred years hence, such a glaring inconsistency will be laughed at, will not be believed to have been possible: that a man is so mad that he cannot marry, he cannot make a will, he cannot dispose of his property, but still this very madman may be held responsible for any criminal act.

For the sake of example, it has been urged that it is inexpedient to spare a criminal, even if lunatic; that punishment should take effect, for the benefit of the community. But as an example, an execution is a mere mockery, it is worse than useless; it has no beneficial effect upon those who hear of, and much less on those who actually witness, these executions; and be it remembered these latter, after all, generally supply the next criminal for the scaffold; and, if so little effect is produced by executions on those held to be of sound mind, what influence can be anticipated when a criminal is acknowledged to be insane?

The terror of death does not often haunt the wicked and the ignorant; and infidelity and ignorance are so prevalent, that large masses of our population scarcely know of a future state; to be ushered into the presence of an offended God, is nothing terrible to them; and hence these miserable criminals often meet death on the scaffold with what is called courage, but it is insensibility to danger. It is very true a longer interval between the sentence and the execution is now humanely allowed, and that this time is employed by a chaplain or other philanthropic persons in teaching a criminal the way of salvation; but this, although it may benefit the individual, does not



act upon the community, and in no way tends to mitigate or diminish future crime; and, unhappily, these offers of mercy are often blasphemously rejected by one even condemned to death: thus proving that instruction which might, if given in early youth, have rendered the culprit an honest and useful member of society, cannot now in any way soften his obdurate heart.

The inutility and inefficacy of an execution, under any circumstances, as an example, is very evident in a case which occurred on the 30th of March, 1846. The following are the facts:—A young man had killed his master by shooting him with a pistol; he had long harboured the design, and, even after being condemned and left for execution, had formed a plan for murdering in his prison a young woman with whom he had been intimate, and who had been called as a witness against him.

When on the scaffold he bowed twice to the spectators, who loudly cheered him, and he would have repeated his obeisance, had he not been admonished by the chaplain.

It appears this young murderer had attended every execution at the Old Bailey for several years! Now, I ask, what effect had these executions upon him? How did his death upon the scaffold influence the numerous spectators? Did they feel appalled at the thought of a fellow-creature appearing in a few seconds before his Maker? Why, they were delighted at his *sang froid*, they cheered him, they did all they could to prove how highly they applauded his coolness, his determination; and, thinking nothing of the cause that brought him to the scaffold, sent him out of this world amidst a thousand plaudits. This is not a rare instance of insensibility to danger, for courage is not its name. Numbers who suffer on the scaffold care for nothing in this world or for that which is to come.

Crime is generally associated with ignorance, and ignorance may be removed by education.

It seems hardly reasonable to occupy more time in endeavouring to prove the inutility of executions when the criminal is acknowledged to be insane, were it not that so much prejudice and so much *precedental* folly exists upon this subject, and that this leads to such unhappy consequences.

A lunatic, fancying he foresees destruction, murders three or four children and then commits suicide; or a lover murders his paramour and then falls by his own hand; or a husband at once puts an end to the supposed infidelity of his wife, and then terminates his own existence. The feeling may occur at once, and be immediately put into execution, but more generally, the same impulses occur, but are at first controlled. These recur with increased power, often inducing the possessed to warn his friends or nearest relatives, or the individual himself against whom he harbours deadly designs, when, if restraint, removal, and separation are early employed, recovery often occurs, and the individual may pass the remainder of his life in happiness and comfort; but, if neglected, the sacrifice of one or more lives but too frequently has resulted.

Now, it is asked, can it be presumed for one moment to be right, to hold such a person responsible for his actions? Is he accountable for the deeds he has committed? Or can it be considered necessary to leave him for execution as a warning to other madmen? Why, the warnings of executions are useless as such, even to those held to be sane. How often are felonies committed at the moment a felon is expiating his crime upon the scaffold. At a recent execution, which occurred at the Old Bailey, a young man leaves the place of execution, and on the same night commits the very deed for which he had seen the murderer suffer on that morning, and was himself very soon after executed upon the same spot! If punishment by death does not restrain the sane, is it likely to influence those proved to be lunatic?

A Hindoo devotee, a man of amiable character, desired his wife and children one afternoon to take a walk on the beach, from whence, he said, he intended to accompany them on a longer journey. She inquired whither? and he informed her, that his God had invited him to heaven, and to take his family with him, and that they were to go by water, and set out by Back Bay. Perfectly satisfied with this explanation, the wife proceeded with

her children to the sacrifice. The parents drove the two elder children into the sea, and they were carried off by the waves; they then drowned the two younger, who were infants; the wife walked in and perished, and the husband was deliberately following her, when he suddenly recollected that the disappearance of a whole family would occasion inquiry from the English Government, and might involve his neighbours in some trouble; so he determined to step back and inform them of the circumstance before he completed the sacrifice. His Hindoo neighbours heard the story with characteristic insensibility, and perhaps admired the act; but a Mussulman was present, and took the enthusiast before a magistrate. He was tried, condemned, and executed for murder; he was perfectly satisfied with the sentence, and only regretted that it occasioned an unpleasant delay in his passing to heaven.

Imprisonment or transportation would probably be more efficacious in deterring these religious fanatics from such heathenish sacrifices. About half a century ago, a most mischievous religious madness broke out in Denmark, which rapidly spread, being highly infectious. The persons who were influenced by it believed that they should ensure their own salvation by committing murder and suffering death; and, that they might avoid the danger of sending any soul out of the world in an unprepared state, they selected children for their victims. Such madmen were not to be deterred by capital punishment, death being what they sought; they were therefore sentenced to perpetual imprisonment, and this put a stop to the frenzy.

It has been held that, even if a Commission of Lunacy has been granted, the lunatic may not murder with impunity: he must be incapable of distinguishing between good and evil. As the law is now held, a lunatic is responsible for any criminal act he may commit during a lucid interval. Many physicians deny the existence of lucid intervals, and this was the opinion of Dr. Haslam, after twenty-five years' experience; however, the general opinion is, that lucid intervals do exist; and a question is often raised, whether a man is in the possession of a perfectly healthy mind during a lucid interval, which is considered by some to be impossible. While quiet, such a person perceives and judges pretty accurately; but let anything excite him, and the disease often at once recurs; the brain is irritable, and, as Dr. Combe says, this should always be kept in mind, as the heaviest responsibility has been incurred by lunatics who have committed crimes during such an interval; and this appears also to accord with an opinion expressed by Dr. Prichard.

The consideration of this subject is of equal importance in a civil as well a criminal point of view; and it is only just, again to state, that in homicidal insanity the lucid intervals are often of great length.

Another point worthy of deep consideration is, whether a criminal lunatic should be punished for a criminal act, committed shortly before his attack—whether it is not most probable that the crime resulted from latent insanity, which possibly developed itself for the first time in the criminal act, the insanity being only suspected or proved within a short time after the crime. Of course there must be some limit to this period of incubation, but it is a subject worthy of grave inquiry.

(To be continued.)

### ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARK-WICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

(Continued from p. 223.)

### ON THE DIGESTION OF FECULENTS, AND ON THE PART THEY PERFORM IN NUTRITION.

After albuminous substances, fecula performs the most important part in the alimentation of man and of domestic animals. It may be said, without any exaggeration, that the greatest progress towards avoiding famine has been to increase the pro-

duction of feculent matters. It is necessary, therefore, to know how they are digested, and to ascertain their part in nutrition. The researches to be about to relate have been undertaken with this view.

The subject is naturally divided into two parts: first, the digestion of raw fecula; second, the digestion of cooked fecula. First, then,

#### ON THE DIGESTION OF RAW STARCH.

1. If a person ingest for two or three days starch mixed with cold water, and the excrementitious matters be afterwards examined with a microscope, grains of starch will be discovered unacted on.

2. We gave a dog starch mixed with water; his excrements presented under the microscope numerous grains of starch in their natural state.

3. We introduced into the stomach of a dog, into which a fistulous opening had been made, according to the ingenious proceeding of M. Blondlot, a small linen sac filled with potato starch. At the end of twenty-four hours it was withdrawn, and the grains of starch were found entire. These experiments are in accordance with those published by M. Blondlot in his work.

4. Some potato starch was mixed with some gastric juice obtained by giving raw meat to a dog having a stomachal fistula. The mixture was left for twenty-four hours at a temperature varying from 95° to 104° F. The grains of starch remained unaltered.

5 and 6. Some starch was mixed with water, containing in one case 0.001 of hydrochloric acid, and, in the other, rendered slightly alkaline by bicarbonate of soda. Both mixtures were exposed for twenty-four hours to a temperature of 38°. The microscope again showed the grains of starch to have been unacted on.

It has been proved by one of us, that the different membranes which form a part of the digestive apparatus, either of man or dogs, have not, any more than the gastric juice, the power of rupturing the integuments of grains of starch at the temperature of 38°.

These facts suffice to show that grains of starch pass, in great part, unaltered into the digestive apparatus both of man and of the dog. Is this a reason why feculents may not be carefully employed as food for these animals? No, indeed, but we consider it a demonstrated fact that feculents are not, generally speaking, an aliment for man and the carnivorous animals until after their integuments have been broken by coction. We will now pass on to those animals which digest raw starch, and among these we will allude to the herbivorous animals among the mammalia, and the gallinaceous tribe among birds.

A strong adult male rabbit was placed for two months on a diet consisting of raw potatoes cut into slices, and rolled in a mixture of potato starch and bran deprived of any adherent farinaceous principle. This rabbit was killed three hours after a good meal, by dividing the medulla oblongata.

*Stomach.*—This was filled by a grey pappy matter which strongly reddened litmus-paper, and presented under the microscope the potato parenchyma and numerous grains of starch in a perfectly unaltered state. The pap contained in the stomach was expressed, and the liquid repeatedly filtered so as to obtain it perfectly limpid. On being then examined, it was found to have a density of 1.012 at the temperature of 50° F. Observed in a tube of 300 millim., by means of M. Biot's apparatus, it gave evidence of a rotation towards the left, although to a very slight extent only, not being more than — 1° 3'. This liquid became slightly troubled when heated to 212 F., and let fall a precipitate on the addition of nitric acid, and of solutions of bichloride of mercury and prussiate of potash.

The starch appeared to us to have left the stomach unaltered. In this viscus the first stage only of digestion had been accomplished. The acid liquid of the stomach had dissolved the albumen of the potato, as was proved by the rotation towards the left hand, the microscopical examination of the residue, and the reactions above mentioned.

*Small Intestines.*—These were entirely filled by a mucous pappy matter of a greyish colour, having throughout an evident alkaline reaction. The mi-



microscopical examination of this pappy matter was very interesting. Some of the grains of starch were still found entire, and tolerably abundant, especially near the pylorus; others were observed fissured in several places, having the appearance of pears into which incisions had been made with a sharp instrument; some were deformed, while others were almost entirely destroyed. Tincture of iodine produced on the entire and fissured grains the characteristic colour. Besides the grains of starch, some excessively small globules, less than  $\frac{1}{800}$  of a millimetre in diameter, were met with, which became coloured yellow by tincture of iodine.

The pappy matter contained in the small intestines was mixed with four times its weight of alcohol, and the mixture, after standing twenty-four hours, filtered. Examined in a tube of 300 millimetres it did not appear to us to have any appreciable action on polarized light. On evaporating the alcohol a brownish extract was left, of a bitter taste. It was redissolved in water, and one half of the solution mixed with yeast, but there was no evident sign of any alcoholic fermentation. The other half was heated to 212°, F., with Frommherz's liquid, and a very slight reduction was the result.

The residue, insoluble in alcohol, was treated with four times its weight of water. This liquid also had no apparent action on polarized light. A few drops of sulphuric acid were added to it, and the mixture kept for an hour at the temperature of 212° F. The acid was then separated by basic acetate of lead, and Frommherz's reagent added to the solution. A very distinct reduction was observed. (a) It is in the small intestines of the rabbit that the principal modifications take place, by which fecula is rendered soluble in water. The conditions which favour these modifications, and which are here combined, are—1. A temperature of about 104° F.; 2. A slight alkaline condition of the ambient liquid; 3. The presence of a principle having an action similar to diastase, the effects of which have been already treated of. (b) Under the influence of these three conditions combined, the integuments of the fecula are ruptured, and the fecula itself converted, the greater portion into dextrine, and the lesser portion into glucose.

*Cæcum.*—This organ and its voluminous appendix were filled with a pappy matter, of the consistence of a liquid paste, of a grey colour, and a very weak acid reaction, but which became very marked at the end of twenty-four hours. Examined under the microscope, this paste also presented the grains of starch in an entire state, but few in number; the very minute globules were very numerous.

The paste was diluted with four times its weight of water, and the liquid repeatedly filtered; still it never passed through clear, owing to the transudation of some of the extremely minute globules. On adding tincture of iodine to this opaque liquor a very distinct violet colour was produced.

The cæcal liquid was never sufficiently limpid for examination with the polarizing apparatus. We submitted it to the following tests:—A portion was evaporated slowly to the consistence of an extract, and then taken up by alcohol at 85°. On evaporating the alcoholic strainings, a coloured residue, trifling in amount, was left, which was redissolved in water. To one half of the solution yeast was added, but no evident fermentation was the result. The other half was boiled with a few drops of Frommherz's reagent, and a very apparent reduction was observed.

The portion insoluble in alcohol was taken up by water, and the aqueous solution boiled with a few drops of sulphuric acid, which was afterwards removed by means of the basic acetate of lead, and then again boiled with Frommherz's reagent: a very considerable reduction was obtained. Therefore, besides the insoluble remains, the globules, and

the disorganized starch, there exists in the paste contained in the cæcum and the ileo-cæcal appendix, dextrine and a very small quantity of glucose. We also detected in these matters the presence of lactic acid in the following manner:—

Another portion of the liquid obtained from the washings of the paste contained in the cæcum was evaporated to dryness; the residue then taken up by strong alcohol and the liquid acidulated by adding to it some sulphuric acid diluted with alcohol. At the end of twenty-four hours the liquid was filtered, and then saturated with very finely powdered litharge, after having been previously mixed with its weight of water, and the alcohol had been eliminated. The lead solution was decomposed by a current of sulphuretted hydrogen, and the liquid then presented a very weak acid reaction. It was evaporated to drive off the sulphuretted hydrogen, when it had the appearance of an acid syrup. This was the lactic acid such as M. Berzélius had obtained it in his analysis of the blood. It was saturated with a few drops of baryta water, and the salt of baryta formed, carefully decomposed by a solution of sulphate of zinc. On evaporating the supernatant liquor, some fine crystals of lactate of zinc were obtained.

The *large intestines* contained solid excrementitious matter, in which, with the naked eye, we easily detected the remains of the parenchyma of the potato; and with the microscope and the tincture of iodine, a few grains of starch still entire.

*Blood.*—A mixture of venous and arterial blood was examined. The serum was colourless, not milky, transparent, and had a strong alkaline reaction. The blood was diluted with twice its weight of water, and coagulated by heat; the liquid then filtered and divided into three parts. The first was evaporated to the consistence of an extract, and afterwards taken up by alcohol; and the residue obtained by the evaporation of the alcoholic strainings redissolved in water, to which a few drops of Frommherz's reagent at 212° F. had been added. A slight reduction was observed. The residue, insoluble in alcohol, was dissolved in water, and boiled for half an hour with sulphuric acid, which was subsequently removed by basic acetate of lead. Frommherz's reagent then indicated in this solution the presence of glucose, derived from the action of the sulphuric acid on the dextrine.

To the second portion of the liquid obtained from the coagulated blood a few drops of sulphuric acid were added, and one half of the mixture distilled in a glass retort. Some water passed over, which had no sensible action on litmus, and which contained no formic acid.

In the third portion, lactic acid was sought for in the mode above mentioned, and a few crystals of lactate of zinc were obtained.

The *bile* was in small quantity in the gall-bladder, of a greenish-yellow colour, and very alkaline. It was diluted with twice its weight of water, and precipitated by sulphuric acid. The mixture was afterwards boiled, and the acid saturated by potash. Frommherz's reagent, on being then added to this liquor, became reduced at the boiling point. Another portion of the bile was diluted with water, then acidulated with lactic acid and mixed with yeast. There was no sign of any alcoholic fermentation.

*Urine.*—That contained in the bladder was alkaline, small in quantity, and milky, owing to the earthy phosphates it held in suspension; it contained urea, but no sugar or dextrine.

No chyle could be obtained.

7. An adult male rabbit was fed for ten days on raw potatoes cut in slices, and mixed with fecula and bran, free from farina.

The temperature of this rabbit was very carefully ascertained, and was found in the large intestines to be 140° F.

Death followed the hemorrhage, occasioned by dividing one of the principal branches of the *venæ portæ*—an operation performed with a view to collect the blood from this vessel; and secondly, by the division of the subclavian artery, when no more blood escaped from the wound in the branch of the portal vein.

The *stomach* was filled with a grey-coloured pappy matter, which strongly reddened litmus-

paper. On examining this matter with a microscope, we observed in it a large number of grains of starch in their entire state, and colourable by tincture of iodine.

A liquid was expressed from this paste, which, when carefully distilled, yielded no volatile acid. We detected in it the presence of an albuminous substance, a trace of sugar, of lactic acid, of the alkaline and earthy phosphates, and some alkaline bases combined with one or more organic acids.

The *small intestines* were very carefully and thoroughly examined, in order to ascertain their condition, whether acid or alkaline. The contents of the duodenum had a very strong alkaline reaction; and mucus, bile, grains of starch—some entire, some fissured, and others perfectly disintegrated; globules which were coloured yellow by the addition of iodine, and the remains of the parenchyma of the potato, were easily recognised in them. The remainder of the intestine contained a semi-liquid, alkaline, pappy matter, in which, on examination with the microscope, we discovered the same substances as in the duodenum; the entire grains of starch becoming less and less numerous as we approached its extremity. The liquid obtained by filtering this paste, diluted with water, contained an albuminous matter, dextrine, and an exceedingly small proportion of glucose.

The *cæcum* and the *vermiform appendix* were filled by a thick substance of a darker colour than the contents of the small intestines, and, contrary to what was observed in these, had an acid reaction. We ought to mention, however, that the extremity of the ileo-cæcal appendix was found, immediately after death, to be sensibly alkaline. A microscopical examination betrayed also here the presence of all the substances contained in the small intestines: grains of starch, unaltered, were easily recognised, although they were few in number.

On diluting this paste with twice its weight of water, we detected in the filtered liquid, by the proceeding above described, the presence of dextrine, glucose, and lactic acid.

The *large intestines* enclosed solid matter, having an acid reaction, in which we still discovered, by the aid of the microscope, entire grains of starch which had escaped the digestive process.

*Blood.*—The venous blood and that from the *venæ portæ* were separately examined. The characters common to these two fluids were as follows: they both separated into a clot and a colourless, remarkably transparent serum. In both we ascertained the presence of dextrine, a few traces of glucose, and of lactate of soda. The distinguishing characters presented by arterial blood and that from the *venæ portæ* were, that the latter furnished about three times more serum than the former; that the density of the serum of the blood from the *venæ portæ* was 1027, and that of the serum of arterial blood 1028; and, lastly, that the proportion of dextrine and glucose was greater in the blood of the portal vein than in the arterial blood.

The *chyle* was so small in quantity that it could not be collected.

The *bile* was also trifling in amount, of a greenish-yellow colour, and contained glucose and dextrine.

The *urine* was milky, alkaline, and scanty, and contained neither glucose nor dextrine.

8. A rabbit, about two-thirds grown, was fed for fifteen days exclusively on barley and distilled water, and then killed by dividing the carotid artery; the blood was collected, and had a temperature of 103° F.

*Stomach.*—This viscus enclosed a grey-coloured pulp, having a very strong acid reaction. Besides the remains of the barley, whole grains of starch, which were coloured blue by a solution of iodine, were easily distinguished with the microscope. This paste was mixed with four times its weight of alcohol, and the mixture filtered after twelve hours' maceration. The alcohol was removed by distillation, and the alcoholic extract, under the form of an amorphous reddish-brown mass, taken up by water. The solution was then filtered and divided into two parts. To one a few grains of washed yeast were added, which gave rise to no very sensible disengagement of gas; the other was mixed with Frommherz's reagent, which detected a few

(a) In the experiments we have related we have abstracted the mucous and albuminous matters contained in the small intestines.

(b) See the *Medical Times*, vol. xv., p. 67. On the Functions of the Pancreas, and on its Influence on the Digestion of Feculents.



traces of glucose. The portion contained in the stomach, and which had not been acted on by the alcohol, was treated with water. The filtered liquid gave the reactions of dextrine, and contained, in addition, an albuminous matter, lactic acid, and salts.

*Small Intestines.*—The reaction of the contents was tried in different situations; the yellowish-white mucous pap always restored the blue colour of reddened litmus as much at that portion of the duodenum adjoining the pylorus, as at its opposite extremity.

The results of the microscopical examination of the pappy matter contained in the duodenum were very interesting. Entire grains of starch were easily detected in it, and also others which presented the alterations already mentioned. Besides these, some amorphous substances, and globules of extreme smallness, which were coloured yellow by a solution of iodine, were also observed in it. Towards the lower extremity of the small intestines entire grains of starch were still noticed, but they gradually decreased in quantity, while the globules became more numerous.

The matters contained in the duodenum and in the remainder of the small intestines were separately examined, but yielded the same results. The extract left from the distillation of the alcoholic mixtures had a bitter, afterwards sweet, taste; and when redissolved in water, and mixed with Frommherz's test, gave evidence, on boiling, of containing a few traces of glucose.

The residue, insoluble in alcohol, was treated with water, and the aqueous solution thus obtained boiled for three quarters of an hour with one-twentieth part of sulphuric acid, which was afterwards saturated by lime. The supernatant liquid contained a very small quantity of glucose.

A portion of this aqueous solution was mixed with a few drops of Frommherz's reagent, and boiled; no sulphuric acid in this case being previously added. At first there was no reduction, but, on a further application of heat, an abundant reddish precipitate was formed.

*Cæcum and Vermiform Appendix.*—These were entirely filled by an acid pappy matter, in which there were abundant remains of the ligneous portion of the barley, a very few grains of starch still entire, and numerous globules that were turned yellow by a solution of iodine. In the matters taken up from this pulp by alcohol and water we detected a small quantity of glucose, a larger proportion of dextrine, and free lactic acid.

The *rectum* enclosed solid matter which was not turned blue by iodine. Under the microscope it was found to contain not a single grain of starch, but crystals of silica, numerous globules, and some of the remains of the cortical part of the barley.

*Blood.*—As usual, a mixture of venous and arterial blood was mixed with twice its weight of water, and coagulated by heat. A very small quantity of the filtered liquid was treated by Frommherz's test, and a very slight reduction was the result. To the largest portion was added about four per 100 of its weight of sulphuric acid, and the mixture introduced into a large retort, and half of it carefully distilled. This did not redden litmus-paper, and contained neither hydrochloric, acetic, nor formic acid. The liquid remaining in the retort was filtered, saturated with potash, and mixed with Frommherz's reagent, which, at the boiling point, became considerably reduced.

*Bile.*—This existed in very small quantity in the gall-bladder, was of a greenish-yellow colour, very alkaline, and transparent. It yielded the same results as in the other experiments.

*Chyle.*—Too scanty to be collected.

The *urine*, contrary to what is the case in rabbits, was acid; it had a yellowish hue; contained urea, but no dextrine or glucose; uric acid we could not detect in it.

As is well known, by changing the diet of carnivorous and granivorous animals, we may render their urine alkaline; and we now find, that by giving corn to herbivorous animals they void an acid urine. The alkaline, or acid, condition, therefore, of the urine depends, as is proved in this instance, not on the difference in the organs, but on the difference of diet.

9. Two pigeons, two months old, were fed solely on barley for fifteen days, then killed by dividing the carotid artery. The temperature of one was 109° F., and of the other 110° F.

The *crop* contained grains of barley, which were merely moistened, and had an acid reaction.

The *gizzards* contained particles of quartz and a few grains of barley entire, but were in great part filled by a fine very acid paste, in which barley was found in a bruised state. By the aid of the microscope we also detected in this paste some grains of starch entire, and Frommherz's test demonstrated the presence of a trace of glucose. A portion of the paste was washed with water, and the washings carefully distilled, but no volatile acid passed over. We detected in the retort lactic acid and some phosphate of lime.

*Small Intestines.*—In one of the pigeons the paste contained in the pyloric extremity of the duodenum was acid, while in the other it was alkaline. In both, the remainder of the small intestines enclosed matter that had an alkaline reaction, and the consistence of which gradually increased, the colour also becoming green. In the upper third we observed, by the aid of the microscope, some grains of starch that had not been acted on, and some eroded; the remains of the others we discovered by the tincture of iodine. In the lower third there were no grains of starch, but we detected in these matters traces of glucose and dextrine.

The *rectum* contained faecal matter of an acid reaction, in which there was no indication either of glucose or dextrine.

The *blood* was mixed, after coagulation, with twice its weight of water, two per cent. of sulphuric acid then added to it, and half of the mixture carefully distilled. The water that passed over was not acid; and the residue gave evidence of the presence of glucose.

#### ON THE DIGESTION OF COOKED STARCH.

Not only do animals, essentially herbivorous or granivorous, digest cooked starch, but man and the carnivorous tribe also digest it, generally speaking, with facility, although in a much less perfect manner than the granivora. For instance, when dogs, or other carnivorous animals, are fed on bread given at discretion, starch and dextrine are found in the excrements; whereas in pigeons this substance disappears before the termination of the small intestines.

In our first memoir we related the results of our researches on the digestion of bread in dogs. We have since repeated them, and the additional remarks we have to make are but few. As we therein stated, the digestion of bread in dogs is slow, which, as we shall presently prove, is a favourable circumstance. By diluting the contents of the stomach, and of the different portions of the intestines, with water, and filtering, a liquid is obtained, which, when observed in a tube of 500 millimètres, had not, in any of our observations, any evident or constant action on polarized light.

These results naturally led us to conclude that starch was not converted, during the process of digestion, either into dextrine or sugar; but, on evaporating this liquid, an extract was obtained, which we treated with alcohol at 85°, then strained the mixture, evaporated it, and dissolved the residue in water, when, by means of Frommherz's test, we detected in this solution traces of glucose. The residue, insoluble in alcohol, also gave us the reaction of dextrine. The inactivity of the yeast, and the want of action on polarized light, were owing to the proportion of glucose being so excessively small as to be detected only by an extremely sensitive reagent. The carbonic acid, which was formed by its destruction during fermentation, was so small in quantity that it was dissolved in the water, and did not occasion any sensible effervescence. The want of action on polarized light might be owing to two causes: either to the proportion of organic matters dissolved being so small that the impression made by them on polarized light was too slight for the deviation to be sensible; or (and this supposition is true) to the matter dissolved containing traces of glucose and dextrine, which occasion a rotation towards the right, and of albumi-

nous matters, which occasion it towards the left; the result, in consequence, being null.

The whole of the digestive apparatus, from the stomach to the rectum, of a dog fed on soup and plenty of bread, contained lactic acid in both a free and combined state. We obtained lactate of zinc in a well-characterized form.

*Blood and Bile.*—The bile of a dog fed on bread contained traces of dextrine and glucose; so likewise did the blood: consequently, cooked as well as raw fecula become converted during the digestive process into dextrine, glucose, and lactic acid.

19, Langham-place.

(To be continued.)

## PROGRESS OF MEDICAL SCIENCE.

### ACADEMY OF SCIENCES.

*Meeting of Jan. 4;* M. MATHIEU in the Chair.

**ELECTION OF OFFICE-BEARERS.**—After a short address to the meeting, M. Mathieu vacated the chair, which was immediately occupied by the new president, M. Ad. Brongniart. M. Pouillet was elected vice-president for the year 1847.

### ACADEMY OF MEDICINE.

*Meeting of Jan. 5;* M. BEGIN in the Chair.

#### LITHOTOMY AND LITHOTRITY.

Professor Roux read a report on two communications by Dr. Fleury (of Clarmont Ferrand) and Raynaud of Montauban, both relative to urinary calculi, and to the operations necessary for their removal. In the first part of his report, Professor Roux related fully a case of lithotomy, in which the operation was performed in November, 1845, by M. Fleury, for the extraction of a calculus which had formed on a shoemaker's awl, both extremities of which protruded much beyond the circumference of the concretion. The patient was perfectly cured. In the second part, the learned reporter gave the history of an operation in which the stone was successfully crushed in the bladder by Dr. Raynaud; the concretions, entirely formed of lithic acid, had acquired the size of a nut; also, the details of four successful cases of lithotomy in children under ten years of age. After relating these observations, Professor Roux proceeded to lay before the academy some remarks of his own, on the relative value of the two operations at the present day, and drew a rapid parallel between the two methods. In children, no doubt has ever been entertained by the profession; the smallness of the organs, the fragility of the instruments which they would admit, and, above all, the generally happy issue of lithotomy in young subjects, have always caused lithotritry to be rejected. In the adult, from twenty years' experience, and from numerous cases collected by M. Roux since the great discussion which took place in 1835, in the academy, he thinks that the two operations can be fairly compared: lithotritry is performed on choice subjects, on persons in the most satisfactory conditions of health; whereas, lithotomy is limited nowadays to those patients who were rejected as too unfavourably disposed for the adoption of the opposite method. Professor Roux did not, by any means, question the results of lithotritry, but it was an exceptional operation, applicable only to a limited number of cases. Lithotomy, on the contrary, could be looked upon as a general method. The reporter concluded by proposing that the names of the two authors be inscribed on the list of candidates to corresponding memberships.

M. Velpeau: In a recent publication by one of the members of the academy (M. Civiale), important and curious statistics are brought forward. Out of 260 cases, in which lithotritry was performed, twenty cases of death have been recorded. Now, if it was recollected that all these were subjects chosen for the healthy condition of their urinary organs—that cutting was performed only on the most unfavourable cases—it would become evident that circumstances were not equal in the two operations, and that their relative statistics could not, with any degree of fairness, be compared. Since twelve years, M. Velpeau's opinions had not changed on this subject. Taking into consideration



all the bearings of the matter, the learned professor was inclined to think that the difference between the results of both operations was not so great as it is generally believed.

M. Amussat remarked that the debate was of sufficient importance not to be permitted to drop. For his part, the learned member had, since the discussion alluded to by the two preceding speakers, believed the triumph of lithotripsy to be complete—that it was generally considered as a safer and more satisfactory method than lithotomy. However, as new doubts appeared to have arisen, M. Amussat thought it would be proper and useful to adjourn the subject to an early meeting, when it might be fully entered into.

The conclusions of the report were adopted, and the debate was adjourned, the academy having decided that it should take place immediately after the discussion relative to M. Piorry's theories on intermittent fever.

## FACULTY OF MEDICINE.

### LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

We now turn to the study of those new principles which disease may introduce into the urine. Prout, to whom science is indebted for so many interesting researches, detected in the renal secretion free muriatic and sulphuric acids. Sir C. Scudamore asserts, that in gouty subjects phosphoric acid, in a free state, may likewise be found. The recent progress of organic chemistry renders it very desirable that these researches be repeated, and their correctness tested anew. A particular variety of calculus is composed of oxalic acid in combination with lime, and the origin of this acid is extremely difficult to ascertain. Is it the result of a transformation of uric acid, or the consequence of the use of sorrel (*oxalis acetosa*) as an article of food? The latter opinion we do not feel inclined to adopt; because the use of sorrel is very general, and oxalic concretions are very rare. In red urine we find sediments of purpuric acid, but the independent existence of rosacic acid is not well proved. Hippuric acid (Bouchardat), butyric, malanic, benzoic, and carbonic acids have also been met with. In one case an Italian author avers that hydrocyanic acid was present in human urine. Xanthic, oxide, and cystine have also been seen. Sulphur and iron, uncombined, can be sometimes detected, without it being possible to discover by what agency they are dissolved. As to phosphorus, it is not by chemical analysis, but by the production of the singular phenomena of phosphorescence, that its presence has been recognised. Instances of the kind are, however, very rare; pure blood or its elements are frequently found in urine, but the time is gone by when milk could be admitted to exist in reality in that fluid—casein, perhaps; but even before this is established as a fact, further experiments are necessary. As to the colouring matter of bile during icterus, and spermatic fluid, no doubt can be entertained of their occasional passage into the urine. Pus, emanating from the various parts of the urinary organs, is frequently met with, and sugar in one particular disease. With regard to substances introduced into the stomach, some, like quinine, pass unaltered through the kidneys; others, on the contrary, are decomposed, their acids or alkalis alone being excreted with the urine. Four causes only can render that fluid alkaline:—1. The ingestion of alkaline salts (Vichy water, *c. g.*). 2. Vegetable diet. 3. Stagnation of the urine in the bladder. 4. A spontaneous secretion of alkaline urine in the kidneys; but cases of this latter kind are excessively uncommon, so much so that even in granular kidney, although large quantities of albumen are contained in the secretion, it still preserves an acid reaction. We fancy, however, that in a small number of cases of convalescence from various disorders, we have found it alkaline. The odour of the fluid is of course governed by its state of freshness or putridity; but it is not a little remarkable that the inhalation of some substances, such as essential oil of turpentine, communicates to it a smell totally different from their own. The intensity of the colour of urine is not always in pro-

portion to the quantity of uric acid and urea, and may be also modified by the amount of water. The aspect is therefore deceitful, and cannot by any means lead to a correct knowledge of the chemical composition of urine. The specific gravity varies between 1,010 and 1,020. In diabetes it is considerably increased by the presence of sugar, and with so much regularity that from an increase to 1,030, diabetes may be diagnosed. In albuminuria the specific gravity is diminished on account of the passage of urea into the blood.

### MORBID CHANGES IN THE SOLIDS.

A living solid is an agglomeration of particles bathed in a fluid from which are derived the component materials, and to which return the superfluous portions. This incessant movement of composition and decomposition constitutes organic life. All the alterations of living solids may be referred to three heads:—1. A change in their circulation (afflux, stagnation, extravasation); 2. A change in the mode of assimilation; and 3. A change in the disaggregation of superfluous particles, by which they remain deposited between the living molecules, and form the various sorts of accidental productions, being either imperfect representations of natural textures, like cartilage, or totally different from them, like tubercle, melæna, and cancer. These morbid growths may exist amid the tissues without destroying them, or constitute unfinished organisms, subsisting at the expense of the being in whom they have been developed. Attaining a higher degree of organization, they may live of an independent life, as in the various orders of entozoa.

From these preliminary observations two remarks must naturally arise: first, that in many alterations of the solids a considerable share is attributable to the blood, and in many cases the change in the blood has been the primary cause of modification of the solids; secondly, that many of these local changes are the expression of a general disturbance of the system. In one class of these alterations of solid textures the primary fact seems to be a derangement in the disposition of the blood which traverses them. This class may be divided into three genera—hyperemia, anemia, and hemorrhage.

In hyperemia, accumulation of blood takes place in the small vessels, but not in the capillaries; these small vessels are shown by the microscope to be a subdivision of the arterial system, and constitute a complete network terminating in the venous circulation. In man no blood is extravasated in the vacuolæ which intervenes between the small blood-vessels, except in the spleen and erectile tissues; the network intercepts cellular spaces, in which only amorphous solid matter can be detected. In the extremely small vessels, two sorts of fluids are observed to flow: in one set the blood, with all its elements, the globules being occasionally permitted to pass several together, and in smaller tubes only one at a time; in another set a colourless serous fluid is alone admitted, the diameter of the ducts having become so small as not to allow the passage of any blood discs, at least in the healthy state. Blood discs are never observed but within vessels; their extravasation necessarily implies laceration of the vascular parietes. In the cavity of the blood-vessels the corpuscles occupy the centre of the stream; near the walls, pure serum is observed in an almost complete state of immobility, containing transparent globules endowed with a slow movement of progression. In the centre the red blood discs flow on rapidly, carried onwards by the sanguine stream, but the relative movement of each disc is extremely irregular: the accidental meeting of two globules, the division of a vessel, the shock against a neighbouring blood disc, are circumstances sufficient to occasion changes of form, of direction, and of speed in each corpuscle. When the circulation slackens, the immovable layer of serum in contact with the parietes diminishes, and the contrary is observed when the corpuscles are thrown into the centre, and the general rapidity of the stream increased.

The blood is propelled by various forces: by the heart in the first place, although Bichet asserts that the action of the heart ceases where that of the capillaries begins; in the second, by the action of

the vascular walls, and by the influence of their numerous nerves. It is also fair to suppose that the modifications in the chemical composition of the blood also have some influence over the rapidity or slowness of capillary circulation. The form of the capillaries, which differ from each other in each tissue to such a degree that Beer asserts that each organ may be known by the peculiar form of its capillaries under the microscope; their forms and arrangement, doubtless, have some action on the circulation, and regulate more or less its movements. Their number, their diameter, and the ratio between their diameter and the interstices which separate them, vary considerably; in this last respect the intervals may be equal, inferior, or superior to the diameter of the capillaries, and hence a more or less easy disturbance of the circulation: the most vascular tissues, like the lung, being all those most favourably disposed to the production of congestions. The microscope has never permitted any observer to notice the exit of any particles of blood from the vessels into the solid surrounding textures. The exhaling vessels which Bichet supposed to be destined to form the tissues have never been seen; but the daily progress of microscopic science shows that no other communication exists between the solid textures and the circulating fluid, but through the very small porous apertures which are observed in the vascular walls, the size of which does not, during health, permit the passage of the red corpuscles of the blood.

We have stated that the derangements of the capillary circulation may be classed under three heads—hyperemia, anemia, and hemorrhage.

Let us, in the first place, examine hyperemia or congestion. To the naked eye a tissue is congested when, having lost its natural colour, it acquires a bright scarlet, red, dark, or even black hue, without mortification having taken place. This change of colour may or may not coincide with an increase of volume of the affected part. The microscope shows in the vessels, the globules crowded together and an accumulation of blood, the natural consequence of which is a dilatation of the vessels. This accumulation of blood is the result of the slackening of the circulation, and of its stagnation under the influence of various causes; from the variety of causes naturally arises a division of the several sorts of hyperemia. 1. In the first place, hyperemia resulting from diminution or increase of the action of the heart. 2. Another form consequent upon suspension of the circulation when the collateral arteries are slow in supplying the place of the obliterated vessels. 3. Obstacles to the progress of the blood in the veins may occasion a third form of hyperemia. 4. Some causes of congestion reside in the capillaries themselves, and may be referred—A. to mechanical influences, such as a physical disturbance of the currents of blood; thus, when a needle is introduced into the tissues, pressure being removed in the wounded parts, globules flow towards it from every direction; declivity of any region, where the action of the heart has lost some of its energy, is another of the mechanical causes of congestion, amongst which we should also mention the influence of a vacuum made on any part of the skin. B. the physical causes of congestion acting specially upon the capillaries are the influences of temperature: cold slackens the circulation of blood, which returns to its natural standard when the refrigeration is removed, provided that it has not lasted too long; heat acts in an opposite manner: if the degree of heat is very great, coagulation of albumen takes place—another cause of arrest of circulation. In inorganic tubes containing fluids, the application of heat or cold slackens or quickens the movement in an analogous manner.

The application of irritating substances also modifies the circulating currents; is it merely by their irritant action, or do they become absorbed by endosmosis into the blood in such a manner as to change its composition? Whatever may be the correct solution of this question, the application of irritant substances slackens, instead of quickening as might be supposed, the progress of the stream of blood. Again we find these currents deranged by disorders of innervation, or disturbed by changes in the composition of the circu-



lating fluid. Thus we observe frequent congestion in the various sorts of miasmatic or virulent intoxications, or in cases of scurvy (accompanied, as we have previously shown, by diminution of fibrin). But numerous as are the causes enumerated, still these are not all: for the explanation of certain facts, otherwise unintelligible, it becomes necessary to form a hypothesis. Solid matter appears in some instances to attract and fix the blood: in pregnancy the womb; the external organs of generation during erection; the embryo; the basis of the antlers of the stag at certain periods of their growth,—all become the seat of a congestion to which none of the above-mentioned causes can properly apply.

D. M'CARTHY, D.M.P.

M. Legrand recommends the local application of an ointment containing one part of nitrate of silver to fifteen of common cerate in leucorrhœa. Thirty or forty-five grains of this ointment are to be enclosed in a muslin bag tied round the index finger, and then smeared over the whole surface of the vagina and the neck of the uterus, as in a vaginal examination. He speaks of it as a very successful plan of treatment.

M. Pétrequin reports eight cases of aneurism treated by galvano-puncture; seven of these appear to have been successful. One case died nearly a month after the operation from hospital fever: so that the death could not be attributed to that cause. Even in this case, absorption of the tumour had gone on to a considerable extent.

M. Guérard advises the application of concentrated solution of ammonia to burns of the first and second degrees of severity. If the fingers are burnt they may be immersed in the solution; if other parts, a compress dipped in the solution is to be applied, covered by a dry cloth to prevent evaporation. The pain is said to disappear immediately. No vesicles form; but the epidermis peels off in layers resembling parchment.

Incontinence of urine, so common among young girls, is treated by M. Guérard with ergot of rye, in doses of eighteen grains per diem. The incontinence is attributed to an inflammatory state of the neck of the bladder.

Mr. R. C. Browne, of Tamworth, calls the attention of the profession to the external application of hydrocyanic acid as a means of allaying pain and irritation in cases of fracture and severe contusions. He asserts that it supersedes the application of leeches, by preventing inflammatory action in the majority of cases. He has seen it produce very marked effects in infantile convulsions, even when leeches and other means had failed. He has not favoured us, however, with the precise mode of application, and the degree of dilution of the acid.

A case of occlusion of the os uteri during pregnancy, and of operation for the passage of the foetus at the full period of pregnancy, is detailed by M. de Corral y Ona in the "Gaceta Medica." After having protected the rectum and bladder by the fingers of an assistant and his own, he passed up a convex bistoury, protected to near its point, and cautiously made an incision of about half an inch in length. The opening was further dilated to about three inches with the assistance of a director. The patient was happily delivered; and the child, although at first asphyxiated, was ultimately restored. Authors have doubted whether such a state of things has ever occurred.

M. Roder, of Leuzberg, found that, during an epidemic among leeches in 1845, they were preserved by dipping them for a few minutes in water to which solution of chlorine was added in the proportion of three or four drops to forty-eight ounces, and afterwards placing them in pure water. Perhaps the same end would have been effected by hydrochloric or sulphuric acid in similar proportions.

The operation of cutting into the gall-bladder has been performed by M. Rossi under peculiar circumstances. The gall-bladder became adherent to the abdominal wall, and a collection of matter formed which pointed in the right iliac region. It was opened, pus escaped; a biliary calculus was

felt through the opening, and on this being extracted the abscess healed.

Mr. Battley, the ingenious chemist, has given the following mode of preparation for the syrup of iodide and chloride of iron. Iodine is diffused in three or four times its weight of cold distilled water, and well shaken for ten minutes with half its weight of iron filings gradually added. The solution changes from purple to green. The protochloride of iron is obtained by dissolving iron filings in hydrochloric acid (sp. gr. 1.160). After standing for some hours a green liquid is obtained. The solutions of iodide and chloride are mixed, and as much white sugar added as is necessary to form a syrup. The syrup should be of a pale green colour, and the proportions so adjusted as to contain three grains of iodine and nearly four grains of iron in the fluid drachm. Either of these salts of iron may be used separately.

## REVIEWS.

*On the Antidotal Treatment of Epidemic Cholera.*

By JOHN PARKIN, M.D. 8vo. London: Samuel Highley, Fleet-street. 1846. Pp. 48.

For this pamphlet of forty-eight pages Dr. Parkin charges *half-a-crown*! We are not editorially complaining of the sum specified on the covers, for we did not buy the book, and therefore have not thrown two-and-sixpence away; but we cannot help thinking it would have better consisted with a lofty spirit of philanthropy, such as our author affects to be provided with, to have furnished this ready antidote to this rebellious disease at a cheaper rate. Half a crown, *per se*, is not very much, but yet we should consider it more than a little for forty-eight pages!

Of the work itself we have not much to say: it is clearly the production of a man who knows nothing of the subject he writes upon, and is not over particular how he treats it. Thus, at page 1 of the preface, speaking of the specifics for cholera, he says:—

"That the remedy here alluded to is *one of this class*, I cannot entertain the slightest doubt."

And at page 3 of the same preface, he tells us that

"Nature never employs *two* agents when one will suffice. If, therefore, the *cause* be single, why should not the *remedy* be single also?"

Whilst carbon is *one of a class of specifics* for cholera, it is also *the specific*; nature never employing twain when one will answer! Pretty logic this, and a pretty compliment to nature, say we.

The Doctor tells us that he has failed "to ascertain, by analysis, what the nature or composition of this poison (of cholera) is; and, consequently, what are the substances capable of combining with it, altering its properties, or destroying its virulence." (P. 10.) Did Dr. Parkin, or anybody else, ever obtain any of this said poison to try any of these said analytical experiments upon? We should feel very much obliged by the proper details: no doubt they would constitute quite an era in the march of organic chemistry! He informs us, at p. 9, that "the poison of cholera acts principally on the stomach and intestines." We suppose he means when there is plenty of vomiting and purging. But may it not also act upon the skin, causing its extreme aridness and harshness; upon the kidneys, causing a suspension of their secretion; upon the bladder, contracting it into a little ball; upon the salivary glands, arresting their function; upon the liver, stopping the formation of bile?—nay, may we not, in extravagance, go still further, and say, it acts on the extremities, turning them blue? We think in these absurdities there is little choice. But what will Dr. Parkin say of that cholera in which there is *neither vomiting nor purging*? Does cholera-poison, then, act on the stomach and bowels?

His remedy, or specific, rather, is either carbon or carbonic acid—we cannot tell which, and we doubt whether himself can. At any rate, he does not seem to know the difference between the two. He appears to rest its claims upon the antiseptic

properties of the antidote, and thus curiously enough remarks:—

"Knowing that carbonic acid combines with, and renders innocuous, putrefactive and other substances injurious to animal life, it is neither unreasonable nor unscientific to conclude, that this gas neutralizes the effects of those noxious and excrementitious matters, which always to a greater or less extent exist in such situations." (P. 13.)

Without replying to the Doctor's conclusion, which, in common with all bad logicians, he betakes himself to much sooner than he ought, we simply deny, *in toto*, the proposition he offers respecting the antiseptic powers of carbonic acid gas! Under ordinary circumstances, it will perform none of the wonders he imputes to it! As regards its efficacy in cholera, administered in effervescing draughts, and in every other convenient way, Dr. Parkin was *not the first to tell us that it had been frequently tried, but he was the first to tell us that it had been frequently successful!!* We have seen it tried a score times, and without once doing the least good! Moreover, the history of the disease and of its treatment will confirm what we say. In the hands of Dr. Parkin, however, "carbonic acid is an antidote," and we congratulate him on the circumstance! May his discovery never grow less! Carbon, again, is an antidote with him! Truly enough, it never rains but it pours. Did anybody ever hear of a sweep having cholera? We never did. If this be a rule, the *soot* may have something prophylactic about it. Smoky chimneys, and the corners thereof, will be at a premium, if cholera should again visit us; and hydraulics of extra power will be wanted for forcing soda-water bottles, which ought to be labelled, "specifics for vomiting, purging, and cramps."

## MEDICAL SOCIETY OF KING'S COLLEGE, LONDON.

Dec. 10; Dr. TODD, President, in the Chair.

Mr. Griffith read a paper on "Skin Diseases and their Treatment." In his introductory observations he alluded to the fruitful source of profit which skin diseases afford to quacks, and remarked that the real cause of the success of quackery is the imperfection of medical art, and the ignorance of medical men; that the right way to combat quackery is to strive to remove these opprobriums from our profession.

In considering a case of skin disease, the physician has first to determine the following points: 1, whether it is inflammatory or acute; 2, whether syphilitic; 3, if neither inflammatory nor syphilitic, but chronic, whether contagious or non-contagious. For the first, antiphlogistic measures are appropriate, except when the inflammation presents an asthenic character, in which case tonics are indicated. The question of syphilis is determined in the affirmative by the presence of a coppery hue on the skin and on the eruption. As this coppery hue, however, is not always very readily recognisable, owing to difference of complexion, evidence of the syphilitic origin of the eruption should be sought in the history of the case; in the presence of ulcerated sore throat, iritis, or periostitis. For syphilitic eruptions, the author believed mercury to be an efficient, and the only efficient remedy. With regard to the reputed good effect of iodide of potassium in these maladies, he remarked, that he has never seen it have the slightest effect on them except when mercury was given with it, whilst a sharp course of mercury seldom or never fails to produce a cure. Iodide of potassium is usually administered with alterative doses of Plummer's pill, and under this treatment syphilitic eruptions frequently get well slowly; but may not the cure be due to the mercury alone in these cases, unaided by the iodide? He altogether disbelieved its efficacy in the affections in question.

If a case of skin disease is found to be neither inflammatory or acute, nor syphilitic, but chronic, then the question is, is it contagious? If contagious, it is also local, and requires appropriate



local remedies? If the disease, being chronic, is not contagious, it belongs to what the author believes to be a very natural group of cutaneous affections, and designates "non-contagious chronic diseases of the skin." None of these, he considers, are local, but all-dependent upon a constitutional cause, and he believes that this cause is much the same in every variety of the large group in question; the varieties depending upon accidental circumstances of age, climate, and idiosyncrasy. This opinion he supported with the fact that they all yield to the same remedy. He had found that arsenic, judiciously administered, is a uniformly successful remedy for all these affections—as much a specific for them as quinine is for ague. The arsenic should be given in doses of from three to five minims of the liq. arsenical three or four times a day, regulating the quantity and the frequency of the doses so as to keep up a slight action upon the conjunctiva, and, with this indication of its effect, should be persevered in for some time after the affection has disappeared. It should be borne in mind that arsenic is a cumulative medicine, not one of those of which the system becomes more and more tolerant the longer they are taken. It should be given after the food, which prevents its injurious effect on the stomach. The author then proceeded to read a number of brief accounts of cases in which arsenic was administered for the cure of "chronic non-contagious skin diseases" with uniform success; in several of these the effect of the arsenic was strikingly evidenced by the exacerbation of the eruption when the medicine was accidentally omitted for a few days during the progress of the cure. These cases were one of lichen, one of prurigo pudendi muliebris, one of prurigo scroti, one of prurigo formicans, two of lepra, three of psoriasis, one of urticaria, and one of purpura; with regard to the case of purpura, he hinted that the cure might probably have been due to the tonic effect of arsenic on the capillaries, rather than to its specific virtue in skin disease.

Mr. Rhodes was astonished to hear the author express himself so decidedly against iodide of potassium; he had often seen its exhibition attended with marked good effect in syphilitic eruptions.

Mr. Eade remarked that iodide of potassium has very marked effect in curing syphilitic periostitis, which warrants a presumption of its efficacy in other syphilitic affections.

Mr. Pittard observed that the fact of a remedy curing syphilis in one tissue furnishes no presumption of its efficacy in curing it in other tissues; because, though iodide of potassium has very marked influence in syphilitic periostitis, it is not of the slightest use in syphilitic iritis, and, *vice versa*, mercury cures syphilitic iritis, whilst it makes syphilitic periostitis worse. He could not give a decided opinion as to the effect of iodide of potassium in syphilitic eruption, but he had great confidence in mercury.

Mr. Wood questioned the expediency of giving arsenic for many skin diseases; he thought the author had underrated the dangerous nature of that remedy. He once saw arsenic given for pityriasis, in doses of four drops of the liq., increased to five drops, to a girl; as soon as the conjunctiva became affected, she got extremely ill; left off the medicine and recovered; resumed it; was again taken ill suddenly, and died. The eruption in this case was much bettered, but he considered it far better that many skin diseases, which are often merely very trifling inconveniences, should be left uncured, than that they should be cured at the risk of the patient's life.

Mr. Griffith had seen arsenic given in very numerous cases, and had never witnessed anything so alarming in its effects as occurred in the case mentioned by Mr. Wood. Was Mr. Wood sure that the patient had not taken over doses?

Mr. Wood said that he should have added that the patient was suddenly seized with symptoms of poisoning by arsenic, but actually died in a fit resembling epilepsy, to which she was subject, soon after.

Mr. Webb and Dr. Arlidge also joined in the discussion.

# PHARMACEUTICAL SOCIETY, JAN. 13.

Mr. T. N. R. MORSON in the Chair.

Mr. Bell and Mr. C. Major received prizes for proficiency in organic chemistry.

A paper by Mr. Lewis Thompson was read, "On the Action of Strong Nitric Acid on Sugar."

Mr. Squire read a paper "On the Inhalation of Ether in Surgical Operations," at the same time exhibiting his inhaling apparatus. This instrument resembles in form a Nouth's apparatus: a sponge wetted with ether being placed in the upper part, the vapour descends to the bottom, whence it is conveyed to the mouth by a flexible tube, to which a mouthpiece is attached. The tube contains a valve to prevent the return of air into the vessel, and, by a simple contrivance—a ferrule placed near the mouthpiece with one perforation, the supply of vapour can be regulated at the will of the operator, enabling the surgeon to give the whole of his attention to the patient. Mr. Squire explained that various reasons might be given for the apparent failure in producing insensibility, irrespective of the merits of the instrument, as in the experiment by Mr. Liston in the amputation of the forearm, where the precaution was not taken to prevent the ingress of free atmospheric air to the lungs through the nose, which is essential to success. In consequence of the publication of the failure, without the mention of these circumstances, the merits of the apparatus had been unjustly called in question, as the omission is equally fatal to the production of stupor in the use of every apparatus. He considered that much depended on the willingness of the patient to receive the vapour, as the effect was produced much more easily when that is inhaled freely. He had found in some cases that one minute was sufficient time for the effect to show itself; the patients in these cases were in health, and breathed freely. It would be found in all cases where coma was brought on by the use of this means, the patients are equally unable to give any account of the length of time which they have lost—some thinking it an age; others, an hour. He had observed that, when unwashed ether was used, the lungs were often irritated, but this was avoided by washing.

Mr. Hooper exhibited and described an apparatus made under the suggestion of Dr. Boot and Mr. Robinson. It is in many respects similar to the preceding, but contains more valves, and the mouthpiece is furnished with a thin sheet of copper, which, being flexible, is easily adapted to the external contour of the mouth. Mr. Hooper had observed that the result was less speedy when the patient was given to drinking, and took place earlier in the case of young persons. He stated that the apparatus produced had never been known to fail.

Mr. J. C. Clendon exhibited an apparatus of different construction from the preceding, consisting of a glass cylinder, into which is inserted a tube for the supply of vapour obtained from ether, placed in a funnel at the top of the tube. The inhaling tube is provided with stop-cock and valves, and is, like the ether and air tube, inserted in the top. It will be seen that the action of this apparatus depends not on the weight of the vapour, but on its elasticity. Mr. Clendon remarked that the comatose state would not always be induced by the inhalation of ether, and instanced the case of a young man of Guy's Hospital, who for a quarter of an hour on two occasions inhaled so freely that the ether vapour expelled impregnated the atmosphere of the whole house, but no insensibility was produced. Another effect, however, followed. For two days he completely lost the use of his memory. He was not of opinion that any apparatus could be contrived which would be successful in all cases; it was well known that opium, spirits, and other powerful stimulants, sometimes produced effects differing from those ordinarily found to follow this use, and it might be expected that this would be the case with this vapour. He cautioned the meeting against

its indiscriminate use, cited the opinion of Mr. Aston Key against its employment where pulmonary disease exists, or there was a tendency to apoplexy.

Mr. Ward had observed that very much depended on the effectual exclusion of free atmospheric air from the mouth, and he wished to perform an act of simple justice to Dr. Harwood, of St. Leonard's, by ascribing to him the invention of the mouthpiece, which had been so generally adopted.

Mr. Jacob Bell exhibited a very eligible apparatus which he had constructed, having the merit of efficiency, compactness, and elegance.

Mr. Ward, Mr. Girdlestone, Mr. Stokes, and Mr. Tracey, each exhibited an apparatus. Mr. Tracey had found by use that all had answered the purpose, except under circumstances where some little precaution had been omitted.

A very simple contrivance administering the vapour was described by a member, being a bladder with a large tube and stopcock. Three drachms of ether were placed in it, when it was inflated with a bellows. In this method the operator is able to assist the inhalation by pressing the sides of the bladder.

The Chairman explained, in answer to a question, that alcohol is often combined with the ether, and that the washing is intended to remove the same, but that pure sulphuric ether does not require it.

A gentleman who had inhaled the vapour stated that the effect depended in some degree on the length of time spent in inhaling before stupor came on, and on the entire exclusion of free atmospheric air. On one occasion, when, owing to the admission of free atmospheric air, the time had been protracted, the effects were not unlike those following the breathing of nitrous oxide, and sometimes very distressing.

Dr. Andrew Ure remarked, in answer to a question, that the pure vapour of ether was a non-respirable gas, and could not be admitted into the lungs without an admixture of atmospheric air. He suggested a hood to be used, enclosing the head, in preference to the mouthpiece, which would always more or less impede respiration.

Mr. Squire expressed his intention of adding to his apparatus a bladder, which may enable the operator to use a pressure in overcoming the obstacles to free inhalation.

The meeting, which was very large, separated at half-past eleven.

## TO CORRESPONDENTS.

*THE MEDICAL TIMES* is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

A Constant Reader cannot certainly be indicted for a misdemeanour for acting as an apothecary without the license of the Worshipful Company; but a civil action may be brought against him, and he may be mulcted in damages.

We cannot insert the letter of "A Second Antihumbag," as in doing so we should render ourselves liable to an action for libel. If the statements in the letter we have received are correct, the Doctor requires some castigation.



A Medical Student, Bristol.—We should recommend Keightley's "History of England," "History of Greece" in the Library of Useful Knowledge, Goldsmith's "History of Rome," any work on Geography, Crank's "Arithmetic," Lathom's "English Grammar." We should further recommend the student to obtain the "University Calendar," and ascertain by its means exactly what is required in the Matriculation Examination.

A Provincial Medical Student will find the information he requires in the present number of our journal.

Justus.—We have great cause to regret that circumstances over which we have no control have prevented the completion of Dr. Rigby's course of Lectures. We hope to give the few remaining lectures very shortly. When we promised a course of Lectures by Dr. Knox, we fully expected that our promise would be fulfilled. Other engagements have interfered, and caused the course to be delayed, if not altogether abandoned. For this, of course, we are not answerable.

L.—1. The Apothecaries' Company have no power over persons practising purely as physicians. 2. If any one accused of practising as an apothecary should obtain a verdict in his favour, he would undoubtedly be at liberty to bring an action against the prosecutor; but whether he would be able to recover damages is a matter of uncertainty, and must depend chiefly on the particular circumstances of the case, and the proof of injury arising from the prosecution. 3. All Scotch graduates and members of the College of Surgeons of Edinburgh are undoubtedly liable to successful prosecution by the Apothecaries' Company, if practising as apothecaries in England.

Dr. W. H. Brown mentions a case of a man who was in the habit of purchasing ether, saturating his handkerchief with it, and inhaling the vapour. A species of intoxication was produced, accompanied by movements and gestures which excited the merriment of the bystanders. We have seen precisely the effects of the inhalation of nitrous oxide produced by the inhalation of the vapour from a common bladder.

A Correspondent writes,—“I saw in your last week's paper the account before the Vice-Chancellor of 'Brown against the Medical Times.' Are you aware that they (the "Medical Gazette") extracted from your journal a case of poisoning by aconite, forwarded by Mr. Sayle, of Lynn? It appears to me a hard case that they are to do with impunity what they deny your right to do.”—[The inconsistency of the procedure is its least enormity.—ED.]

Mr. Winstone, of Bouverie-street, and Mr. Eden, of Langham-place, sent us the narrative of three dental performances, in which the former was the subject, the latter the operator, and the adjuvant the far-famed ether. From the late hour at which the communication has reached us, as well as from others on similar subjects, we have only occasion to remark that the operations appear to have been satisfactory, without any subsequent effects to serve as a drawback.

M.D. and other Correspondents.—We really cannot here enter on the discussion between Mr. Dorr and the profession as to the ethereal patent, further than to say that the enterprise is, like that of attempting to bind the winds, not less absurd than improper; and that, if these things go on, the public must be on the look out lest some fine morning they find they must not eat hot rolls for breakfast, without the license of some enterprising patentee. We look on every successful operation performed with the aid of ether, since the arrival of the news from America, as the forcible protest of humanity against the sordid speculator.

A Physician's long article on the absurdity of a registration, whose only great effect would be the offer of a premium to low and lowered medical education, and his protest against it on the score of its debasing influence on the character and status of the profession, tell a tale we have ourselves before now unfolded, and which we know has already produced the sufficing effect.

X.Y.Z., who asks us direct answers to half a dozen legal questions, should have favoured us with his

name. 1. A British surgeon-apothecary is a name unknown to law. 2. No teachers of themselves give any legal rights to a pupil, and certainly no protection against the legal powers of the Apothecaries' Company. 3. No German University can give, by its diploma of M.D., any privilege of English practice not previously possessed. 4. The eligibility of the possessor of such diploma to a public appointment depends on the private or public law regulating the institution connected with such appointment. He is clearly not eligible for any parochial medical office.

Several Correspondents must accept our apology for the postponement of their obliging communications.

## THE MEDICAL TIMES.

SATURDAY, JANUARY 16, 1847.

“The Lord hath created medicines out of the earth; and he that is wise will not abhor them.”—ECCLES.

WE had intended, ere thus much of the current medical session had slipped away, to have devoted occasional columns to discoursing on topics of interest with our friends the Students. Various and imperative, hitherto, have been the obligations of our pen, which must be the excuse, we hope not unacceptable, for having as yet delayed an important and pleasing duty. True, however, to a promise made long ago, and heretofore not neglected, we take the earliest opportunity of proceeding with our task. Its performance comes as willingly from our heart as did that of its predecessors in the same line, twelve months ago, and we not only hope, but have good reason to believe, that it will find a cordial greeting from those to whose service it is dedicated.

Last session, after a chapter or two of preface, valedictory to those that were gone, or going, from the ranks of studentship—congratulatory to those who were rejoining the said ranks, and introductory to such as were coming amongst them for the first time: after all these things, and sundry others, we proceeded with special words of admonition! These chiefly bore reference to the practical study of anatomy and chemistry, additionally to which we said a few words, in the summer, about botany. These things were intended to apply to the first year's student, to whose notice we especially commended them. Regarding this student as now in the second year of his probation, it is to him that our attention and advice are further to be directed.

If laboratory chemistry were not attended to in the previous summer, it is, perhaps, well pursued during the present session, inasmuch as it will not encroach upon the duties of the forthcoming summer (which should comprise medical jurisprudence and midwifery), and will aid an important study just now to be pursued, viz., *materia medica*. Anatomy, in the dissecting-room we mean, is still, of course, to be continued: for every winter of the student's career should have a specific portion of it devoted to this most necessary branch of duty. Demonstrations and dissections should be prosecuted just now, attention being particularly directed to the joints liable to luxation, to the parts of hernia, to the precise spots for taking up arteries,

and to the individual character and relative situation of the more important internal organs. In the dissections now made, the student should consider the bearings they may have upon his practical obligations hereafter. He should bear in mind that he now becomes an *anatomist*, that in future days he may be a *surgeon*—that he now studies the *right* disposition of parts, that he may subsequently discover when those parts are *wrong*—that he now learns the character of healthy organism, that in future he may know whether it be morbid, directly that it is presented to him. It is a great error of the student, and not an uncommon one, to pride himself rather in being an *excellent anatomist*, than in being able to *well apply his anatomy*. In this respect he stands in similitude to the classical scholar, who is so familiar with dead languages that he has no knowledge of the right use and beauty of a living one, though it may be that the very employment of this is the means whereby he has to live. There may be *learning* in this, but there is very indifferent *wisdom* in it. We have known a man fully competent by theoretical and practical knowledge, by reading and assiduous dissection, to describe every muscle of the body, individually and relatively, and knowing well every ligament and the uses of it, in the several joints, yet be quite unable to discover a luxation, or to reduce it after it had been pointed out to him. All this was for the want of seeing the appropriation of the anatomical knowledge he was gathering—of seeing that that *very* anatomy was only a *means* to an *end*. In like manner we have known a man pride himself upon being the cleanest dissector in the room, and, in truth, he could lay bare a muscle better than any scalpelist we ever saw, yet he knew less of the muscles than any man who dissected near him. The fact was, he thought more of picking up scraps of cellular tissue, and leaving a bare structure prettily exposed for an artist, than of studying what that structure was—what were its attachments, relations, and uses.

Dissecting, like learning the import of words, is of little value unless it extend beyond this, and *apply itself* as we have said. A man may know a dictionary by heart, yet be a wretched composer of language.

We must not descant further on this head, for our motto has reference to *materia medica*. This is one of the most important departments of the profession, and yet, strange to say, is one of the most frequently neglected. Every man says it is so dull—and no man can see anything in it until he has to make a demand upon its services, and then, for the first time, he finds there is much more in it than he ever gave it credit for. Botany is liked by one man, and another, because it leads to pleasant walks and murmuring rills, and the picking of pretty flowers, and breathing fresh air, and hearing the birds sing: in all of which things there is a dash of pleasantry that is not wholly prosaic. Chemistry is liked by another, because it is a science that has some precision and power in it; it is a great organ in the hands of the active world; it is capable of good and evil, and has made many a man's fortune; moreover, there is a significance about it that impresses



beholders or investigators with an awe of its consequence. Practice of physic is a favourite with another, because it is the "very head and front of" professional importance, and gives dignity to whomsoever may be its agent. Surgery, with another, is paramount, for he may love blood and the instruments of it, and sweeping off a man's limb, or slitting up any other portion of him, is everything in the eyes of the embryo *pure surgeon*, who loves the glitter of the knife and the gash it makes, far more than the paltry medicinal means that may save all this splendid show and derided suffering. Midwifery finds favour in the eyes of another, who thinks it his highest honour to be an arbitrator between Nature and her sternest agony. Medical jurisprudence is preferred by another, for it is made up of varieties, scraps of consequence derived from law and physic, and perhaps may meet with an exaltation, some solitary now and then, before the pompous self-sufficient chair of a petty magistrate, or in the more orthodox precincts of a judge and jury.

Amongst all these, *materia medica* is forgotten—you never find a voluntary champion in its cause. Students dislike it utterly, and yet, when they become practitioners, they have more to do with it than with anything else. In fact they never can move without it—it is next to impossible that they can be called to any case which does not involve the services of *materia medica*. And, inasmuch as it is one of the most commonly demanded subjects of information, so is an ignorance of it one of the most serious failures that can happen to the practitioner. It is no trifling matter to mistake a drug, or to mistake the dose of it. Many a life has been sacrificed by the *perchloride* being substituted for the *protochloride* of mercury—corrosive sublimate for calomel. Scheele's prussic acid, and the diluted acid of the pharmacopœia, have more than once been confounded, and a victim has been the consequence. Morphia has been given for opium, and strychnia for nux vomica, and the result may be inferred. We remember, in our own pupillage, a man being asked the dose of bitartrate of potass, and he said "about half a grain." He was then asked the dose of elaterium, and he replied, "about half an ounce." He was properly rejected at once: *yet this man was a good anatomist*. He was excellent in the dissecting-room; at the bedside he might have poisoned his first patient!

Besides doing actual harm, a practitioner, ignorant of *materia medica*, may make himself very ridiculous in consultation. Some years ago, ourselves had occasion to suggest at a "meeting" the propriety of altering a prescription which consisted of *tonics and a stimulant*, as its author said, and which said tonics and stimulant were compounded of sulphate of iron, sulphate of quinine, carbonate of ammonia, and water! We know an instance of a consultation between a very sensible man and a very silly one, when the former advised a stimulating plan, which the latter assented to, at the same time strongly recommending an outlandish form of ether. The superior said he had had no experience of it, but should be happy to try it on the other's suggestion, pro-

vided he would tell him the dose, *which he was unable to do!*

To those of our young readers, to whom the story may be novel, it may be amusing to know that a physician once wrote a prescription running thus—

R. Infusi sennæ, ℥vj.

Tinct. ejusdem, ℥j.

The apprentice read the first line easily enough, but he was foiled at the second, for he could not find a bottle labelled *tinct. ejusdem* throughout the whole surgery. In despair he scouted every street in the neighbourhood containing a druggist's shop, but everywhere meeting with the risible reply that they did not keep *tincture of ejusdem*! In our own experience we once met with a somewhat similar case that might have proved fatal. A lady, shortly confined, and suffering from constipation and afterpains, was ordered two or three draughts of castor oil, an ounce each, with twenty drops of laudanum, the order being—*haustus pro re nata*. The pupil translated the latinity—for a thing new-born, and, imagining that this must be the child, ordered it to take a draught now and then! Of course, if it had taken one, there would have been no need for a repetition of the dose.

The experience of the profession is full of mistakes and mischiefs, consequent upon an ignorance of *materia medica* and pharmacy. These things may seem dull enough to the student, but he should remember that their main value is their *application*—and he should remember, also, that this will be the chief business of his professional life. Often, on the instant, he will be required to prescribe this or that, and sad will be his dilemma if he fail in his duty or faultily perform it. It often happens that a slip, thus made, leaves no opportunity of atonement. *Once done*, the mischief is too frequently *ever done*.

The only available occasion of rightly studying *materia medica* is during studentship, when its details are theoretically given in the classroom, and daily corroborated in the practice of the hospital. To these two sources the student ought scrupulously to look. They will never fail him—but if he fail them, he may mourn their loss ever after. We earnestly commend this subject, and these remarks, to the notice of our young friends.

#### ON THE PROPER CONSTITUTION OF A COUNCIL OF HEALTH.

COMMISSIONS, committees, and councils, for an infinite variety of purposes, are things of daily occurrence in this busy age. Many of them are purely abortive; no results flow from their inquiries; and, being of a very expensive character, are rather a burden than a benefit to the nation. We cannot deny the utility of the Health of Towns Commission, whose report we have read with considerable attention; it contains a vast amount of information on the causes of disease in large towns, and a collection of the opinions of the highest authorities as to the means to be used for their removal. Unfortunately the report occupies four moderate-sized octavo volumes,

and is not, for that reason, adapted for general circulation; nor can it be expected that the ignorance of even the educated classes would be much enlightened by so bulky a document, even were the report extensively circulated among them, containing, as it does, much matter from which most persons would turn away with disgust. Were it not for this reason, we should be of opinion that the diffusion of such questions as those we append to the present article would be a work of supererogation. The truth is, that full and complete answers to all these questions are contained in the report we have already noticed.

But the agitation of any question of general importance, such as the preservation of the health of the people, requires that the same questions should receive reiterated answers; that they should be put and answered again and again, until, by the circulation of the answers in a brief form, by leading articles in the periodical press, by pamphlets, and other similar means, the public mind is fully awakened to the extent of the evil. We have seen that such a process was successful in the agitation of some recent questions of national importance. Taking these circumstances into consideration, we think that the mode of procedure adopted by the Health of London Association will prove of great national benefit; for the results of its inquiries will be equally applicable to the condition of other towns besides the metropolis. We, therefore, call upon all our metropolitan medical brethren to reply as fully as they are able to the questions proposed, and to give as much information concerning their own particular localities as may be in their power.

But we are fearful that the measures founded on the different sanitary reports will, like many former measures, prove in some degree a job. We are fearful that the test of efficiency will not be that of knowledge, but of influence; and that thus the whole scheme will prove a decided failure. When Sir J. Graham brought in a bill for the regulation of the medical profession, it was in contemplation to found, at the same time, a Council of Health; and this was intended to consist of the "*crème de la crème*" of the profession. It was more than whispered that the redoubtable baronet, Sir B. Brodie, was intended to be its head; that the other members of the council would consist of the more influential members of the Colleges of Physicians and Surgeons; and that a part of the duty of this board would be to present recommendations to the Legislature for the regulation of the public health. Now, we very much doubt whether either of the gentlemen who, had this bill become the law of the land, might have been chosen councillors, would have ever paid any marked attention to hygiene; and we very strongly suspect that they would have been compelled to commence this portion of their studies after they had received the appointment of councillors of health. This looks very much like what is called in the country putting the cart before the horse. But this is a very common result of modern appointments: the parties appointed learn their duties after having entered on their office. Probably these very



sapient men would have proposed one or two gentlemen who had really paid attention to the subject as subordinate members of the council, for the purpose of affording the requisite information; and thus the clumsy contrivance would have been enabled to move, though with slow and halting steps. The *crème de la crème* of the profession would have absorbed the best salaries; they would have feathered their nests very comfortably at the expense of the less influential, but really more useful and important, portion of the council, who would have been graciously permitted to take the leavings of their betters.

There is no doubt we do need a good and efficient Council of Health, composed of men who have the object at heart, and who possess a full knowledge of the subject. One important feature in the construction of such a council is this:—Its members must be well paid, and so well paid as to render other employment unnecessary for their respectable maintenance; and they must be compelled, when taking the offices, to abandon all other pursuits, and devote their *whole* time to the duties of their office. If our unwise parsimony dictate an insufficient salary for such important offices, the work will be badly performed, and the council will prove worse than useless, because it will lead the public into a false security.

That a well-constituted Council of Health is really required needs no proof. We are all aware that any piece of machinery requires a central, intelligent directing power, without which good results cannot follow. We shall take this matter for granted, and now give the general plan of what we consider to be the true constitution of an efficient council. But before entering on the plan a short digression may be permitted.

It is a well-known fact, daily disclosed by the public papers, that the crime of poisoning is largely on the increase in England, and that it very commonly escapes detection; so that it is probable that murders of this description are of weekly, if not daily, occurrence. As so atrocious a crime is becoming a common one, examinations for the detection of poison are, necessarily, much more numerous, and the institution of medical jurists becomes proportionally necessary. Without disparaging the knowledge or education of the medical profession, we do not hesitate to say that very few practitioners are capable of performing the chemical operations necessary for the detection of a poison with sufficient accuracy. We will explain ourselves. Chemistry is not an essential, but simply an auxiliary, science to medicine and surgery; some knowledge of it is necessary, but a profound and practical acquaintance with the details of the science would occupy more time and attention than can be given by the majority of medical students, with justice to the more direct object of their pursuits. Medical students, therefore, do not pay any marked attention to that science, unless impelled to do so by their own peculiar taste. How, then, is it possible that they should be fitted to undertake one of the most delicate and difficult of chemical questions—the detection of minute traces of a deleterious substance? The usual

and the safest practice followed by medical practitioners is, to place the parts supposed to contain the poison in the hands of some acknowledged chemist for examination. It has long been our intention to propose the appointment of a certain number of what we should term medical jurists, whose duty it should be to examine all cases in which foul play was suspected; that all viscera of persons suspected to have been poisoned should be sent to them, *and to them alone*, for examination; and that such examinations only should be legal. These gentlemen, thus officially delegated as medical jurists, should not confine their attention to cases of poisoning, but extend their investigation to all other cases involving medical questions.

Two medical jurists might be appointed for each circuit, whose duty it should be to accompany the judges through the different circuits. They ought to receive a sufficient salary to enable them to live in a style which becomes their position.

The medical jurists, thus appointed, would constitute, when assembled, the Supreme Council of Health, to whose judgment all questions of medical jurisprudence, whether sanitary or not, would be presented for decision with a perfect and well-grounded confidence that they would undergo a sufficient examination; and the decisions of the council would thereby acquire a character which could not be equally obtained by any other means. The medical jurists, indeed, being appointed in the same manner as the judges, would be bound by their oath of office to undertake no other employment, but to give up their whole time to the duties of the office. In travelling the circuits they would be enabled to investigate the state of each town in the circuit, and present to the notice of the judge any nuisances they might observe. But a better arrangement might be made, if local officers of health were appointed. The medical jurists might then receive the reports of the local officers, and, should any particular circumstance demand a personal inspection, such inspection might be made while the jurists were in the immediate vicinity. Thus much time and trouble would be saved, and due attention would be given; the impartiality of their reports and decisions would command equal confidence.

It has been suggested in the preceding paragraph, that the Supreme Council of Health should be constituted by the assembled medical jurists. These gentlemen, following the judges in their circuits, would necessarily meet in London during each term, and thus ample time and opportunity would be afforded for the meetings of the council. At these meetings all the more important questions and reports would be fully examined and discussed, and calm and impartial reports or decisions would result.

There are many and important collateral advantages to be derived from such a constitution of a Council of Health. We will content ourselves, for the present, with the notice of one only, as we should far outrun the limits of a leading article were we to indulge in a full examination of so important a question.

It has been a common and oft-repeated remark, that members of our profession, even the most highly gifted, have cut but a sorry figure in courts of justice; that their evidence has been of a contradictory or vague description; and that medical testimony does not obtain the credit which is freely accorded to that of men far below the members of our profession in education and intellect. What cause can be assigned for so lamentable a circumstance—a state of things so derogatory to the dignity of medical science? That we, who are in the daily habit of conducting the most complicated and delicate investigations, of balancing conflicting evidence, of cross-examining our patients, and, finally, of performing the part of judges in deciding on the evidence placed before us, should be so incapable of furnishing satisfactory evidence when acting as witnesses in a court of justice, seems to be an inexplicable and anomalous circumstance to non-professional auditors. But, when we examine the circumstances more attentively, we have no difficulty in arriving at the true causes of this failure in medical testimony. Two chief causes of failure may be assigned: want of confidence, and the amount of uncertainty which must always attach to a science of observation such as medicine. We cannot feel surprised that medical practitioners succeed so badly in the witness-box, when we reflect that they are comparatively rarely placed in that position. A practitioner may, and often does, pass through a long professional life without being called as a witness in any important trial, before one of the higher tribunals. Now, it cannot be expected that a man who has so little practice in giving evidence will do so with becoming firmness and coolness. He is teased by the opposing counsel, becomes flurried, is put off his guard, and commits some sad mistake, which is, of course, immediately wrested by the opposite party to his own advantage. The fault, then, in a large number of instances, does not lie so much in the want of knowledge or capacity of the medical practitioner, as in his want of confidence and practice in giving evidence. Now, this would not be the case with the medical jurist; he would be frequently placed in the witness-box, would become familiar with the mode of examination, and would acquire that confidence and experience the absence of which we have already pointed out as the great difficulty with which the practitioner has to contend. The ordinary limits of a leader have been somewhat overstepped in this article, but the subject is far from exhausted, and we shall take a fitting opportunity of recurring to it, and of detailing the proceedings of the Health of Towns Association in some future number. In the meantime we print below the questions we have already noticed, as about to be circulated among the members of our profession.

1. Have you observed sickness and disease to arise from badly-constructed and ill-ventilated dwellings, from imperfect sewage, and from bad cleansing of the streets, courts, and alleys?
2. Have the poor power to remedy these evils?
3. Are there any nuisances existing, or are there any offensive trades carried on, in your locality,



such as tallow-boiling, slaughtering of cattle, pig-styes, the burning and boiling of animal or vegetable matter, &c.?

4. In your neighbourhood are there any noxious or offensive chemical works, especially lead, colour, mercurial, and water-gilding factories?

5. If so, have you found them injuriously affecting the health of those engaged in them, or of the neighbourhood?

6. Would it be advantageous to the public that an inspector of nuisances and a public officer of health should be appointed?

7. Do you approve of the establishment of a council of health to watch over the sanitary condition of cities and towns, with power to rectify all those evils which are removable, and which are prejudicial to health?

8. In the evidence collected on the sanitary condition of the labouring classes by the Poor-law Commissioners, and by the Government Health of Towns Commission, it is therein stated that it would be a pecuniary saving to the rate-payers to remedy, at the parish expense, the insufficient drainage, the bad cleansing, and the imperfect ventilation of houses, workshops, and public buildings, inasmuch as sickness, and the evils attendant thereon, entail heavy burdens on the public, not only through voluntary institutions, such as hospitals, dispensaries, &c., but add to the increase of poor-rates. Do you agree in this opinion?

9. Are all the houses and streets in your neighbourhood provided with sewers and drains?

10. Are there any open drains or sewers, and if any, are you aware of any case of disease having arisen from their effluvia?

11. Should the sewers and drains be covered over?

12. No general survey as to levels of the metropolis has as yet been made as a necessary preliminary for efficient drainage. Do you think that such a step should be immediately undertaken by competent persons legally appointed?

13. It is recommended by the Health of Towns Commission, as well as by the Select Committee of the House of Commons, appointed April 30, 1846, to examine the application for local acts, &c.,—that all waterworks, all works for drainage of towns, for sewage, and for paving, should be placed under one administrative body. Does your opinion coincide with these recommendations?

14. Are you of opinion that new legislative measures are required, applicable to all towns and populous districts, for the introduction and maintenance, not only of an efficient and economical system of house drainage, sewage, paving, and cleansing, but also for the provision of an ample supply of water for public and private purposes?

15. Are there any cesspools and privies in the poorer neighbourhoods, full, and suffered to overflow?

16. Are they productive of sickness among the inhabitants?

17. State what cases of disease you have known to arise from this cause.

18. Have the houses of the poor separate privies, or are the inmates compelled to use a common one, indiscriminately as to the sexes?

19. Are uncleanly and indecent habits created by the want of separate privies?

20. Is it practicable to introduce a water-closet into each house? If so, would it produce more decent and cleanly habits, and a better state of health?

21. Do not the public suffer in their health and comfort, and is not decency outraged from the want of public water-closets and urinals in large cities and towns?

22. Are the poor adequately supplied with water?

23. What accommodation have they for keeping the water, and what is its general condition?

24. Is the charge for it reasonable?

25. Does its scarcity conduce to uncleanness and ill health, and are the comforts of the poor greatly abridged in consequence?

26. Is it not the duty of the Legislature to provide an abundant supply of water, and to protect the poor from high and unreasonable charges?

27. Would not a constant supply of water to the

public at large, and to the poor in particular, at high pressure, instead of the present intermittent supply at low pressure, greatly conduce to the comfort, cleanliness, health, and morality of the people?

28. Would it not be advantageous if all dwelling-houses capable of being benefited by an ample supply of water were rated in the same way as for sewage and other local purposes?

29. Are the present water companies sufficiently under the control of Government?

30. Is sufficient attention paid to the ventilation of workshops and houses occupied by the poor in your district?

31. Is the neglect of it productive of demoralization, such as drunkenness, &c.?

32. It is proved that the want of ventilation is a prolific source of disease, such as fever, consumption, scrofula, &c., among the inhabitants. Do you think that public means should be adopted for promoting a proper system of ventilation in all edifices for public assemblage and resort, especially those for the education of youth?

33. It is likewise proved by the evidence taken by the Health of Towns Commission, that overcrowding in common lodging-houses in poor neighbourhoods is a prolific source of disease and demoralization. Are you of opinion that such lodging-houses should be placed under inspection and control?

34. Do you think that in the construction of dwellings for the poor, provision for the efficient admission of light (especially solar light) and air should be enforced?

35. Do you think it would be desirable to give power to parishes, or to the local administrative bodies, to raise money to purchase property for the purpose of opening thoroughfares whereby both light and air would be more freely admitted into the abodes of the poor?

36. Can you suggest any plan reconcileable with the feelings of the poor, to remedy the evil of keeping the bodies of their dead (frequently for a week or upwards) in the same room with the living?

37. How often are the streets, courts, and alleys cleansed in your district, and by what means?

38. Are they effectually cleansed?

39. Are the habits of the people as to cleanliness affected by the condition of the streets, alleys, &c.?

40. What is the reason that in some parts of the metropolis the streets, courts, and alleys are cleansed daily, while in others they are only cleansed at indefinite and irregular periods?

41. Are those courts which are private property cleansed by the public scavengers?

42. Ought mews to be kept as clean as the streets?

43. If the public thoroughfares were skilfully constructed, proper attention being paid to surface drainage and efficient kennelling, would there, in your opinion, be a diminution in the price to be paid for cleansing them?

44. Is not interment in towns frequently attended with desecration of the dead, as well as with outrage on public decency, and is not the frequent disturbance of the earth in churchyards, saturated with the gases of decomposing animal matter, deleterious to health?

45. Are not the quantities of smoke generated in cities and towns injurious to the health and comfort of the inhabitants?

46. Ought not the Legislature to make every possible exertion to abate this nuisance?

47. The Legislature having passed an act to authorize municipal authorities and vestries to establish baths and wash-houses for the poor at very low rates of payment, are you of opinion that they should be brought into use in your locality without delay?

48. Would you recommend baths being introduced into parish and union workhouses and hospitals, not as a remedial measure only, but to promote the health and cleanliness of the inmates?

49. Do you think that habits of uncleanness are productive of demoralization?

50. Should it not be an object of the Legislature to encourage the spirit of commercial enterprise in the execution of the measures for sanitary improvement?

51. If the expense for sanitary improvements

should be charged upon properties, and be distributed over a term of years coequal with the probable duration of the works, and if a special rate of small amount be levied upon the occupiers until the capital and interest shall have been repaid, do you think the burden would be felt by the people?

## PAINLESS SURGICAL OPERATIONS.

The investigation of the new method of rendering surgical operations painless, rather increases than diminishes in interest, both among medical men and the public, who, having now become acquainted with its safe application, followed by pleasing and satisfactory results, have also been crowding our hospitals to witness the operations.

### KING'S COLLEGE HOSPITAL

presented an unusual amount of interest, by the numbers that arrived to witness three operations performed by Mr. Fergusson.

The first case was that of a woman, who had been operated on previously for an abscess *in ano*. When brought into the theatre, she insisted upon having her sleeping draught as in the first operation. On this occasion the operation was for fistula, and she was obliged to lie on her side. The inhalation was employed, but the effect was not so rapid, nor was it so satisfactory, as on the former occasion; and on recovering, and being asked after the operation what had been her sensations, she stated she had felt more pain than in the last operation. The management of this patient appeared to us to be under the control and direction of Dr. Forbes.

The second case was that of a young man who had four or five venereal warts on the inside of the prepuce. The patient was placed in an upright position; the vapour was in this instance administered by Mr. Robinson, and the word given to the operator when to begin after two or three minutes. The operation commenced and the warts removed; during the first part of the operation a slight reflex action of the muscles took place; but on the recovery of the patient, and on being questioned by Mr. Fergusson and Dr. Forbes, he was unaware that the operation had been performed.

The third case, a man who had also been previously operated on for stricture, was brought in to have a catheter passed. Dr. Forbes appeared to manage this case as the first. After inhaling the vapour for seven minutes the catheter was passed, and he evidently showed symptoms of pain, which he afterwards stated to be the fact. In the former operation no pain was felt.

We cannot see the propriety or good judgment in the authorities permitting any person present, unconnected with the hospital (and only invited as a spectator to witness the results), to interfere in any way. The patient should be left entirely to the care of the operator and the party who administers the vapour. It reminds us of the old adage, "too many cooks spoil the broth."

### WESTMINSTER HOSPITAL.

A large number of medical men, the nobility and gentry, supporters of the institution, were in attendance to witness the results of two operations by Mr. Hale Thompson. On this occasion Mr. Robinson administered the vapour in both cases. A woman who had three very large venereal warts on the labia was first operated on. She was affected in four or five minutes; the word given to the operator, "Patient ready!" and the operation of removal quickly performed. On re-



covery she had not the slightest idea that the operation was completed. A young man with phymosis was next placed on the table; he was affected in three minutes, operated on, the sutures inserted, and the whole completed without his knowing or feeling the slightest pain.

The results in these cases were perfectly satisfactory to all present, which, we believe, were widely different in those attempted by similar means on several other occasions at this hospital.

#### GUY'S HOSPITAL.

It having become publicly known that two most formidable operations were to take place at one and two o'clock, as early as half-past eleven numbers had arrived, and anxiously waited the appointed time. As it drew near, the entrance became crowded, and when the doors of the operating theatre were thrown open, a tremendous rush took place to secure the best places. In a few minutes the theatre, gallery and body of the place, were densely packed, while some, disappointed at not gaining admittance, availed themselves by some means of a skylight at the top of the building, and were contented to be distant spectators of the coming scene. The entrance passage to the lower part of the theatre, where the patients are brought in, was also densely crowded, and a large number were obliged either to return home or wait to learn the results from their more fortunate brethren.

At one o'clock Mr. Robinson arrived with his apparatus, and a few minutes after, the first patient, a little boy, about twelve or fourteen years of age, was brought into the theatre to be operated on for stone. He was bound, but the eyes were not bandaged. At first the poor little fellow refused the vapour, as he was frightened at the numbers present. Mr. Morgan, the operator, having introduced his sound before the vapour was administered, caused considerable pain. After endeavouring to persuade the patient to take the pipe, although he still refused, Mr. Robinson closed the nose, the patient opened his mouth, the pipe was instantly introduced, and the boy compelled to breathe the vapour. In two minutes the word was given—"Patient ready!" The excitement of the audience at this moment was intense. In half a minute the stone was extracted, without the patient offering the slightest resistance, or presenting the least suffering. After three or four minutes he recovered and appeared totally unconscious that the operation had been performed. He was taken back to bed, and after the elapse of ten minutes was visited by Mr. Morgan, the operator, and others. When shown the stone, and asked whether he knew it—"Lord, Sir, you never took that out of me, I know, as I never felt it!"

The next operation was for hernia, and performed by Mr. Aston Key, on a man about thirty years of age. When brought into the theatre and offered the inhaler, he readily took the pipe, and after five minutes Mr. Robinson gave the word—"Ready!" Although operating, as it was supposed, for common hernia, it was afterwards discovered to be congenital entero-epiplocele. The operation was continued, and a portion of omentum cut away, which weighed about five ounces. During this time the patient was perfectly insensible, showing no sign of life, save that the respiration remained perfect and easy. While under the operation the patient was allowed to breathe atmospheric air, through the nose, for eight or ten inspirations, the vapour having

been cut off by means of the stopcock attached to the apparatus. Again he was made to inhale the vapour, and this again cut off; the inhalations required to be repeated at intervals of about a minute. The pupils of the patient were fixed, and turned towards the eyebrow; these were examined from time to time, by Mr. Robinson, who made observations to those around him, the purport of which we could not hear. During this time the patient presented the appearance of a corpse, but he breathed as freely as ever; the dissection of the parts while in this state was continued and completed. Three or four minutes before the bandages and sutures were applied, the pipe was removed, and while the last turn or so of the bandage was applied, the patient showed symptoms of recovery. Wine was administered in small doses; and in three or four minutes after, he was asked by Mr. Calaway and those around, if he had felt pain, he replied, "God bless you, I have been looking at those gentlemen up there"; alluding to those who had availed themselves of the skylight. He was removed to his ward, and a rush was made to obtain admittance, but orders had been given not to admit any persons, as they excited the patient by asking questions. We learned a few hours after, that the patients were going on well.

Thus terminated, successfully, two of the most important operations ever performed with the assistance of the inhalation of ether. The cases were of a totally different character, as well as the time necessary for the completion of the operations; and thus the discovery was completely tested. By administering sufficient for a short operation, and continuing the effect in another of a more difficult and dangerous nature, during an interval of from ten to twenty minutes, proves at once, that in the hands of those who will take the trouble to investigate and regulate the inhalation with proper judgment and care, there cannot be any danger in keeping the patient in this quiescent state for even a longer period, adopting the same caution, and observing closely the appearance of the patient.

Those who were present and witnessed the results, and who had gone to the hospital at all sceptical on this subject, must now be convinced that the most formidable operations in surgery may be performed without the patient's knowledge. The practice is no longer of a questionable character, but puts on an air of *certainty*.

#### ST. THOMAS'S HOSPITAL.

The vapour of ether was administered from Robinson's apparatus, at the hospital, on Saturday last, to a child six years of age with complete success; in two minutes and a half, including the inhalation and operation, the fore finger of the right hand was removed. The boy, being perfectly unconscious that the operation had been performed, was asked if he had felt any pain. He replied he had not. Mr. Macmurdo was the operator.

#### SURGICAL OPERATIONS PERFORMED ON THE EYE WITHOUT PAIN, UNDER THE INFLUENCE OF THE VAPOUR OF ETHER.

Case I. was a female, aged sixty-five. The apparatus of Mr. Robinson, was used by Dr. Brett, late superintendent of the Government Ophthalmic Hospital, Calcutta, and now surgeon of the Western Institution for Diseases of the Eye, in the presence of several gentlemen. Some tact and perseverance is requisite to render the patient perfectly insensible: this occurred in about four minutes. The operation was performed and the

cataract extracted in about one minute. The patient remained insensible for two minutes longer; then revived—knew nothing of what had happened. Was your eye cut? No.—Had you any pain? No.—Was anything done to your eye? Not that I know of.

Case II. was for a squint, in a boy aged twelve. He became insensible in two or three minutes. The operation was performed in less than a minute. The patient, on reviving, was quite unconscious of what had taken place.

Case III.—Amaurosis and ptosis (dropping of the lid). The former affection had yielded to medical treatment under Dr. Brett; but, though sight was restored, the dropping of the lid, or palsy of the muscle which raised the lid, remained, for which Dr. Brett proposed removing a large portion of the skin, with some fibres of the subjacent orbicular muscle. The patient remained in a state of utter insensibility during the incision of the skin and the application of three ligatures to unite the divided edges. On recovering, "she had felt nothing," and was not aware that the operation had been performed. On presenting her to a mirror she perceived that the lid was now open as that of the opposite eye.

As these are the first operations performed on the eye since the introduction of this most valuable discovery, they call for some special notice as to the great tranquillity of the organ—a most important object, especially in so delicate an operation as that of extracting the cataract. Reasoning *a priori*, it might have been presumed that the eyeball would have turned upwards, so as to embarrass the operator; but this was not the case.

Dr. Brett is not aware that Mr. Robinson's apparatus has failed in any instance to produce the desired effect.

[To the Editor of the Medical Times.]

Park-street, Bristol, Jan. 12.

SIR,—Yesterday an operation was performed at the Bristol General Hospital, upon a female, aged 63 years. Her leg was amputated by Mr. J. G. Lansdown, the operating surgeon, and completed in less than five minutes.

In this case I administered the ether by means of Robinson's apparatus with the most complete success. It took about eight to ten minutes to procure a state of insensibility. During the time she was quiet; and, on being interrogated afterwards, said, she had not suffered any pain, nor could she believe her leg was removed until the nurse turned down the bedclothes, and showed her she had undergone the operation. During the operation, brandy was given alternately with the inhalation of the ether. The patient, though aged, is going on well.

I am, Sir, your obedient servant,

A. FAIRBROTHER, M.D.,

Senior Physician to the Bristol General Hospital.

#### THE INHALATION OF ETHER.

THE RATIONALE OF ITS OPERATION IN INDUCING INSENSIBILITY.

[To the Editor of the Medical Times.]

SIR,—As no effect can take place without a cause, allow me, through the medium of your widely-circulated journal, to offer what appears to me a reasonable explanation of the insensibility induced by the inhalation of ether. The condition of the patient under its influence is that, I am of opinion, of asphyxia, and which is thus induced. Vital action, I have endeavoured, in my work on the Philosophy of Life, to prove, to be the result of the chemical action developed in the system by the agency of the oxygen of the air inspired, in its combination with the carbon and hydrogen of the blood, at the extreme points of the circulation—in the capillary vessels more particularly, in which the final changes in the composition of the blood take place; and hence their excitement and the organic life of the system—these vessels entering into the structure of all the organs. The vital action here induced, the inhalation of ether, I



am of opinion, arrests; and hence the asphyxia and insensibility which are occasioned.

Before this can, however, be accepted by my reader, it is necessary for me to explain how it is that ether, when received into the system from the stomach, operates as an excitant. This it does in virtue of its composition—it being a compound of hydrogen and carbon: its absolute composition consists of carbon, hydrogen, and oxygen; but the latter, it is presumed, is in combination with a portion of the hydrogen in the character of water; that it virtually is, as I say, a hydro-carbon. This, then, when received into the blood from the stomach, existing, as we presume it does, in a lesser state of combination, or more available condition, than the fatty or other hydro-carbonaceous constituents of the blood, the oxygen of the blood, by predilection of affinity, enters into combustion with it, and then ensues a more active combustion and excitement of, the capillary system of organic life; and thus the stimulant qualities of ether, in common with other alcoholic or hydro-carbonaceous fluids, when received into the stomach. But ether is said to have both stimulant and sedative effects: the latter I shall advert to, after offering an explanation of the effects of its inhalation—which I shall now attempt. The office of respiration is—the exhalation of carbonic acid gas, and the reception into the blood of oxygen. Now, as in the ethereal inhalation the air is presented to the blood diluted with the ethereal vapour and in admixture with this hydro-carbonaceous fluid, when imbibed from the air-cells, the latter immediately, by predilection of affinity, enters into combination with the oxygen, and these chemical changes take place in the blood of the lungs which should be effected, at a more advanced stage of its circulation, in the capillaries of the general system; and thus the defective excitement of the heart and brain, into the composition of which organs these vessels enter, and the condition of asphyxia which is induced—limited of course by the extent and period of the inhalation.

If these views are correct, Mr. Herapath, the celebrated chemist, of Bristol, is quite wrong in his opinion, as expressed in his letter to the Editor of the *Times* of yesterday—that the inhalation of nitrous oxide will produce a similar result, insensibility! On the contrary, the inhalation of the latter must increase generally capillary excitement, and augment the energy of the brain in all its functions, and sensibility among the rest!

I must now return to the sedative influence of ether, in contradistinction to its exciting qualities when received into the blood from the stomach. It having, as I have explained, produced, by its union with the oxygen and the blood in the general circulation, a certain amount of temporary excitement, other portions of it existing in the blood in their passage through the lungs (and where, too, it has, by virtue of its volatile nature, a strong tendency to fly off, and thus dilute and contaminate the air presented to the blood for absorption) now enter into combination with the oxygen imbibed from the air-cells, and thus in the lungs, as in the case of its inhalation, deprive the blood of the general system of its oxygen, and hence its sedative influence on the capillary system and reducing powers.

And thus, Sir, I believe, are all the operations of ether, whether received into the system from the stomach, or by inhalation, very satisfactorily accounted for.

I am, Sir, yours obediently,

C. SEARLE, M.D.

Bath, Jan. 5.

#### PAINLESS SURGICAL OPERATIONS PRODUCED BY INHALATION.

(To the Editor of the Medical Times.)

SIR,—Monopoly is opposed to the spirit of the age, more particularly in connection with a subject

the application of which must tend to the alleviation of suffering humanity. As I can, without doubt prove, that previous to the arrival of the Acadia steamer in Liverpool, on the 16th of December last, that on the 10th of December, at a public lecture in this town, I did declare that I had oftentimes produced unconsciousness by the inhalation of narcotic and stimulating vapours, so that “*surgical operations*” might be performed without pain to the patient during that condition, I urge this claim now in consequence of an advertisement, that the use of inhalation for surgical operations was being patented! This is, indeed, preposterous. I, as the rightful claimant, now give it cheerfully and freely to all who may desire to use it. In the year 1842, I tried the experiment on more than twenty persons with entire success: in fact, the *unconscious state*, remains from half an hour to two hours; whereas, the recent experiments in America do not produce *unconsciousness* for a longer period than *two to five minutes*! I also combine narcotic with stimulating vapours, and can regulate the dose, though in many constitutions it would not be safe, and in these mesmerism will be sure to be successful in rendering unconsciousness!

I would not have it supposed that “*mesmerism*” is, in any degree, interfered with, in consequence of the production of “*unconsciousness by inhalation*.” In the list of nervous diseases, neuralgia, paralysis, headaches, epilepsy, palsy, &c., “*mesmerism*” must be resorted to! Moreover, the whole credit of “*inhalation*” is due to “*mesmerism*,” and the state induced is, in every way, a similar one!

In the year 1843 I published a work simultaneously in Philadelphia, New York, and Boston: wherein, at pages 26, 27, and 28, I distinctly and unequivocally declare “*that unconsciousness can be produced by the inhalation of narcotic and stimulating vapours*.” More than a thousand copies were sold; and my experiments by *inhalation* were the topic of conversation from one end of the United States to the other.

There was hardly an editor who had not a joke on the “*bowl-of-molasses experiment*,” as it was called at the time. I have, fortunately, several copies with me. Dr. Elliotson, in the third number of the *Zoist*, refers to it.

I know, then, you will render me every facility of vindicating that which is most dear to every man—*reputation*, and the priority of having produced a condition, whose application must tend to the alleviation of much human suffering.

I am yours, respectfully,

ROBERT H. COLLYER, M.D.

St. Helier's, Jersey, Jan. 2.

#### PAINLESS OPERATIONS.

(To the Editor of the Medical Times.)

DEAR SIR,—Having to communicate with your office, I may just mention that, on Friday last, I witnessed the attempted administration of ether in two operations at the Royal Infirmary of this town. Into details I have not at present time to enter. Messrs. Wilson and Turner were the operators. The patients old: the one requiring the amputation of the thigh, the other amputation of the leg. Mr. Wilson had previously intimated to me his intention to try the ether; but, owing to some delay or mishap, a suitable apparatus by which to administer it had not been provided. The first patient operated upon by Mr. Wilson continued to gulp at the vapour of ether issuing from an open-mouthed glass vessel for twenty minutes or longer, without any effect being produced (as might be expected, and as I very naturally prognosticated); at the end of that period the thigh was quickly severed by the flap mode, with the usual expression of pain. The second patient (Mr. Turner's) inhaled the vapour for a considerable time by means of an ordinary inhaling vessel, and afterwards from a bladder, into the neck of which a glyster-pipe had been inserted, from which he took a few whiffs. No effect from this being expected, the operator proceeded to work. When just about to make the first incision, the

patient's eyes closed, the head fell on one side, and he assumed the aspect of a person in tranquil sleep. At this moment the first incision was made; and to all the spectators it appeared to be done without any manifestation of pain in the patient. A second afterwards consciousness returned; and before the completion of the operation, sensitiveness was in full vigour. Your own observations in the leading article of Saturday fully explain the “*why and the wherefore*.”

Yours most respectfully,

A. W. CLOSE.

Grosvenor-street, Manchester, Jan. 12.

(To the Editor of the Medical Times)

18, Duke-street, St. James's, Jan. 11.

SIR,—You have published in the *Medical Times* of the 9th inst. a communication from a physician, reinforced by an opinion upon a supposed case given by one of the Queen's Counsel, tending to diminish the value of the patent for the Letheon, which I represent; you will doubtless, therefore, do me the favour, or rather the justice, to give equal publicity in your next number to the following short answer to that communication.

I am, Sir, your obedient servant,

JAMES A. DORR.

Reply to “*the Opinion*” of Queen's Counsel, published in the *Medical Times* of Jan. 9.

1. No counsel can give a client valuable, or *even safe*, advice as to the validity of a patent or danger of infringement, who has not read the specification, and does not know the claim of the patent.

The patent for the Letheon has been duly sealed, but the specification is not yet made public.

2. So far as the general principles of law enunciated in the opinion go, they confirm the views of the patentees.

JAMES A. DORR.

#### MISCELLANEOUS CORRESPONDENCE.

##### OVARIAN DROPSY.

Mr. Bainbrigge describes an interesting case of this disease in the *Provincial Medical and Surgical Journal*. The subject of the case was a married lady, thirty-one years of age, who had had no children, in whom the cyst emulated the size of the uterus at the full period of pregnancy. The lower part of the cyst also protruded into the vagina. Emaciation, dyspnoea, and depression of spirits were the result of the enlarged abdomen. The disease was first observed eighteen months before, commencing as a small tumour in the left iliac region. Menstruation ceased, vomiting and the areola around the nipple were observed; thus simulating pregnancy.

When Mr. Bainbrigge saw her on the 21st of January, 1842, the abdominal tumour fluctuated very freely, giving the impression that it consisted of a single cyst, and it was inferred that the tumour in the vagina was a portion of this cyst. On examination *per vaginam*, a tumour, the size of an orange, was found protruding externally from the os externum, which fluctuated very freely, and received an impulse by coughing, &c. She was afterwards tapped by Sir B. Brodie, who drew off about 25 pints of the ordinary fluid of an ovarian cyst. Both tumours disappeared, but gradually returned, and she was eventually tapped a second time about nine months after the first operation.

Iodide of potassium and electro-galvanism were afterwards employed without benefit. In order to avoid the remarks of friends she spontaneously adopted a system of compression by means of a piece of wood placed on the abdomen and bound down by a bandage. The vaginal tumour was increased by this compression of the abdomen, and the dyspnoea aggravated. On the 6th of May, symptoms of acute peritonitis supervened, which soon subsided under the ordinary treatment. From this period there was a gradual diminution in the size of the tumour, so that in about two months the abdominal and vaginal tumours had both subsided. She rapidly improved in general health and remained in a satisfactory state till May, 1844.



Another tumour then made its appearance, which seemed to have commenced in the right ovary; but this tumour, although it slowly attained a large size, was unaccompanied by any decided vaginal protrusion. An operation somewhat different from that usually employed was projected—it was this: to make an incision of about three inches in the abdominal parietes; to draw out about one half of the cyst, preventing, at the same time, any escape of the fluid into the peritoneum; to remove the outer portion of the cyst and bring the edges of the remaining in apposition with the external wound in order to cause adhesion, and thus form an opening from which the contents of the cyst might easily escape.

This operation was attempted on the 14th of March, 1846. After placing the patient in the semi-erect position on the edge of the bed, an incision, three inches long, was made in the linea alba, commencing two inches below the umbilicus, through the abdominal parietes. The cyst was laid bare, the adhesions were such that it was found impracticable to draw it out; but these adhesions prevented effusion into the peritoneum. The cyst was opened, its contents evacuated, and a plug inserted to prevent closure of the wound. Twenty-five pints of sero-sanguineous fluid were removed. The discharge, after a few days, became more and more purulent, and averaged eight ounces in the day and night. The patient suffered from debility consequent on so large a discharge. Stimulant and astringent injections into the cyst were employed for about a month, but these produced no beneficial effect. The discharge gradually decreased, and the lady took a tour which proved highly beneficial to her general health. At her return, after two months' absence, the tumour had entirely disappeared. A fistulous opening, the size of a quill, remained, from which only about half an ounce of pus escaped daily. Her general health was perfectly restored, but the catamenia were replaced by a vicarious discharge of blood from the opening, which returns regularly, and continues about three days.

Mr. Bainbrigg remarks, that the attack of peritonitis, in all probability, supervened in a rupture of the ovarian cyst, by the piece of wood which was used by the patient for compression of the abdomen; and this is rendered more probable by the sudden and total disappearance of the tumour.

The operation proposed for the removal of the subsequent cyst had for its effects—the formation of an exit for the fluid; the production of a change in the nature of the subsequent secretion, by setting up of a new action; the diminution of the secreting surface, by removal of a part of the cyst, without endangering effusion into the peritoneal cavity. The former object was attained; the latter defeated by the presence of adhesions; but the operation was ultimately successful.

Some remarks follow on the advantages of the operation, as compared with other plans proposed for the removal of the entire cyst, but the reasons assigned do not appear to us sufficiently cogent: for we should imagine that there is no more danger in removing the whole, than a part, of the cyst.

NOTE.—We can testify to the fact, that the secretion from the surface of an ovarian cyst changes very rapidly from a somewhat serous to a purulent character, if a communication with the external air be maintained. We remember to have been consulted, in a case of an ovarian dropsy where the sac so distended the abdomen, and pressed on the neck of the bladder, as to produce retention of urine. The surgeon who was consulted in this case performed the operation of puncturing the bladder; but fortunately, perhaps, made an opening into the ovarian cyst, and drew off a large quantity of the usual fluid of ovarian dropsy. This removed the pressure on the neck of the bladder; the urine was again voided, and the abdominal tumour disappeared. The perforation was kept open by the introduction of a male catheter which was gradually protruded, and cut off bit by bit, until the whole was extracted. A small fistulous opening was left in the locality of the original perforation. The discharge from this opening very soon became purulent; the opening was in-

sufficient for the free discharge of the matter, which caused excruciating pain in its passage, and the poor patient was compelled to resort to large doses of opium to alleviate her agony. When we saw her, the fistulous opening was tortuous, so that a probe could not be passed into the cavity of the sac. We therefore proposed to enlarge the opening, but the patient would not consent to this trivial operation; and, after lingering in severe suffering for several months, died worn out by pain and profuse discharge. There is very little doubt that this case would have done well, had the opening been maintained of sufficient size to allow the free escape of pus and gradual contraction of the cyst. ED.

#### COMA IN A CHILD OF SEVEN HOURS' DURATION, INDUCED BY RUM.—RECOVERY.

A little girl, aged seven, was brought to the Westminster Hospital at seven P.M., on Christmas-eve, having twenty minutes previously swallowed, as nearly as could be ascertained, about *eight ounces of undiluted rum*, which she had reached from a high shelf in a cupboard during the temporary absence of her parents, who, five minutes afterwards, found her on the floor of the room lying on her back, and insensible.

On admission she was perfectly comatose, a smart pinch of the extremities producing no effect upon the countenance, which was pallid and bedewed with perspiration; the pupils were much contracted; extremities relaxed; pulse quick, frequent, and rather jerking; skin cool and moist; the respirations were not accelerated, and were scarcely perceptible. The stomach-pump was instantly resorted to, and tepid water injected, which returned the colour of pale sherry, exhaling a strong spirituous odour, and mixed with a little gastric mucus only. Cold affusion from a watering-pot without the rose, at the height of six feet, was then employed, with the effect in about one minute of causing the child to struggle, moan, and attempt to get up for a few moments only, when it again relapsed into coma. The cold affusion was repeated twice afterwards at intervals of half an hour, with a similar but temporary effect. Cold was then constantly applied to the head, and blisters behind the ears.

Half-past twelve A.M. In a very similar condition to that on admission, excepting that the pupils are much dilated, and features less relaxed; smart pinching of the extremities does not appear to produce the slightest effect.

Eight A.M. The child was perfectly sensible, answering questions readily, and complaining only of headache. The pupils continued much dilated, and the skin was hot, otherwise she appeared to have entirely recovered from the consequences of her heavy potation. The comatose condition left her between two and three A.M. (having continued about seven hours), the mental powers returning at the same time, and she was removed by her mother in the afternoon as convalescent.

#### A MEMORIAL

Presented to the RIGHT HON. SIR GEORGE GREY, BART., M.P., her Majesty's Principal Secretary of State for the Home Department, by the Royal College of Physicians of London, August 8, 1846.

The President and Fellows of the Royal College of Physicians are induced respectfully to address Sir George Grey, as her Majesty's Secretary of State for the Home Department, because they are unable, without the aid of the Legislature, to complete certain changes in their constitution which appear to be called for by the state of the profession and of society, and which they have long contemplated and desired to carry into effect.

The College is bound by its charter of incorporation, granted by Henry VIII., and subsequently confirmed by act of Parliament, to examine and to license, if found competent, all persons who desire to practise as physicians in London and within seven miles round. But the office of examining and licensing those who wish to practise beyond

seven miles from London was given by the act which confirmed the charter, not to the College at large, but to a small body composed of eight of its members, termed elects. The elects not having been chosen, even at first, by the members at large, are endowed with separate functions, which they exercise independently of the College, the constitution of their body being such, that all vacancies occurring in it are required to be filled up by the survivors.

As might be expected, inconveniences have arisen from this divided jurisdiction. And it is worthy of observation, that amongst all the grievances complained of in the petitions for medical reform which were presented at one time, in great number, to Parliament, none were complained of more than the existence of local and exclusive jurisdictions; and the exercise, by numerous independent bodies, of the power of examining and licensing medical practitioners. The latter circumstance, it was alleged, had caused a want of uniformity in the education and qualifications of practitioners passing under the same denomination; and from the former circumstance it has resulted, that licenses valid in one part of the country are invalid in another,—a restriction which proves most detrimental to the good of the profession, and even leads frequently to an infringement of the laws.

Of late years it has happened that the demand by physicians for licenses to practise in the country (termed extra-licenses), which was formerly small, has been greatly increased; hence the evils and inconvenience of the licenses emanating from the College being divided into two kinds, and of their being granted by separate bodies, have become strikingly manifest, and have given rise to complaints, and caused disputes and dissensions in various parts of the country.

Moreover, the act of Parliament already referred to has also given to the elects the function of choosing annually one of themselves to be the president of the College. It has been thought that this part of the constitution of the College is susceptible of improvement; for that the choice of the president ought not to be deputed to so small a body, which is neither elected by the fellows at large, nor under their control.

For the reasons which have been stated, the College is desirous that a short act of Parliament should be passed, enabling it to accept a charter modifying its former charter, as regards the elects, and transferring their functions to the general corporation. An act for this purpose was in fact prepared, with the sanction and co-operation of the late Government, and laid before Parliament. But it proceeded no further, because it was introduced in conjunction with other measures affecting the profession more widely, which were subsequently abandoned.

There are other improvements, lying more within its own power, to which the College has of late years directed its earnest attention.

In particular, it has extended and greatly improved the examinations of those whom it licenses to practise as physicians.

With respect to those who are admitted as fellows or members of the corporation, during very nearly two centuries, they were required, by the by-laws of the College, almost exclusively, to have been educated at the English universities; so that, by long prescription, the graduates of Oxford and Cambridge were admitted nearly as a matter of course into the order of fellows; and, beside them, few indeed either were or could be elected.

The object of this regulation was to ensure in the fellows of the College the best and highest education. And it had, confessedly, the effect of raising highly the character of the College, and, through its influence, that of all orders of the profession in this country.

Nevertheless, the exclusiveness of the rule excited jealousy and discontent, and became a cause of frequent litigation, until, by repeated decisions of the courts of law, the right of the College to be the sole judge of the qualifications of those whom it would elect as fellows had been established beyond dispute.

In the present century, a high standard of education being adopted more generally, the restric-



tion in favour of the Universities of Oxford and Cambridge, which had been enforced so long by the College, became proportionately less requisite and proper.

Wherefore the College, although still retaining a conviction of the superior advantages to be derived from an education in those universities with which it had been so long connected, has, nevertheless, rescinded its exclusive by-laws.

For several years the fellows have been selected out of the order of licentiates: solely from regard to their character and attainments, and without distinction as to the place of their education.

To a considerable extent this plan has proved satisfactory to the profession. Yet a system of selection is attended always with some invidiousness. Therefore the College has resolved to adopt another principle in the admission of fellows, not liable to the foregoing objections, which will be perfectly equitable in its operation, and most honourable to those who avail themselves of it; viz., that the ordinary mode of admission to the fellowship shall be through an examination, high in character, comprehensive in extent, and open to all licentiates who may submit themselves voluntarily to it. Whilst, at the same time, a limited power shall be preserved to the College of admitting as fellows, without examination, those persons who may have greatly distinguished themselves by scientific pursuits and discoveries; who, not having enjoyed the advantage of the best early education, may have made up for this deficiency by superior talents and energy, but whose age may be such, as well as their known attainments, that they ought to be exempted from the examination intended for younger men.

As far as the College is concerned, the changes and improvements which have been mentioned might have been effected earlier, had they not been retarded by circumstances over which the College could have no control. An outline of the reforms contemplated by the College was submitted to the Marquis of Normanby, when Secretary of State, and was favourably entertained by his lordship. A change, however, in the Government followed soon afterwards, and delayed further progress.

The subject of these reforms was repeatedly brought under the consideration of Sir James Graham, and they met with his approval; but it seemed to him expedient that they should be brought forward simultaneously with the general measures which he contemplated for the regulation of the whole medical profession.

In consequence of the desire then expressed by the Government, the College proceeded, with the assistance of its own legal advisers and those of the Crown, and with considerable pains and expense, to prepare the draught of a new charter, modifying its former charter in the way which has been already explained.

The title of the College of Physicians of London was to be changed by the new charter to that of the "Royal College of Physicians of England"; and, by one of its clauses, the College offered, for one year after its acceptance, to admit as members, without examination, all graduates of British universities of a certain standing, now practising throughout England and Wales.

A conciliatory measure of this kind appears to be much required in the present state of the medical profession; for there are many physicians practising in England, not being graduates of Oxford or Cambridge, who yet are not, as legally they ought to be, possessed of a license from the College of Physicians of London.

Therefore the College proposed this measure as the commencement of a more regular and effective system, and in order that it might, more perfectly than is possible at present, represent and regulate the interests of all physicians in this country.

The College will be ready to abide by the offer and concession which it then thought right to make, provided means can be devised whereby all physicians practising in England and Wales shall henceforth (reserving the rights of the Universities of Oxford and Cambridge) be required to submit their pretensions to the Censors' Board (to which the College deputed the examination of those whom it licenses), in order that their competency may be

properly tested, and that they may be enrolled as members of the College.

By another clause in the new charter, power was given to the College, in certain specified cases, to expel unworthy members. As circumstances sometimes arise requiring the exercise of such a power, the College believes that it would be expedient that it should possess it. A similar power has recently been given by charter to the College of Surgeons.

It was also provided by the new charter, that persons who having exceeded the age of forty years, and having been duly examined by the College, are found competent to practise as physicians, shall be entitled to use the designation of Doctor of Medicine, although not graduates of any university. Whereas, for all candidates who present themselves for the license under the age of forty, it is made an indispensable requisite that they should have obtained the degree of Doctor of Medicine in some recognised university, before they can be admitted to examination by the College.

The reason of this distinction is, that in a practical profession, like that of medicine, it is always right that those who, by superior talents and industry, have raised themselves in public estimation, should have the power of rising from a lower even to the highest rank in the profession. It seems reasonable that the College, to which such persons must apply for legal authority to practise as physicians, should be empowered to confer the title which through common usage is necessary to render the license intelligible by the public, and useful therefore to the possessor of it. In this way a want which is occasionally felt in the profession might be supplied, without detriment to the universities, and without material infringement of the rule, which ought to be upheld, that those who intend to be physicians should resort to the universities for preliminary and general education.

Such being the objects and principal enactments of the new charter which has been prepared for the College, the salutary changes which it would effect are calculated, in the opinion of the College, to render it an institution more generally acceptable to the physicians of this country, and more useful to the profession and the public.

Therefore, the College respectfully but earnestly requests the assistance of Government, in order that a short act of Parliament may be passed, enabling the Crown to grant this charter, on the petition of the College, and in order that the Crown may be advised to grant it.

FRANCIS HAWKINS, M.D., Registrar.

#### GOSSIP OF THE WEEK.

WAR-OFFICE, Jan. 8.—1st Dragoon Guards: J. Peile, Gent., to be Assistant Surgeon, vice Mackenzie, promoted on Staff.—Hospital Staff: Assistant Surgeon W. O. Mackenzie, M.D., from 1st Dragoon Guards, to be Staff Surgeon of 2nd Class, vice Nivison, retired on half-pay; F. M. Tweddell and W. G. Dickson, Gents., to be Assistant Surgeons to the Forces.

We understand that Dr. King, of Sackville-street, has submitted to the Medico-Chirurgical Society a paper "On the Cause of Death of Infants preternaturally Stillborn," wherein he denies the truth of the theory of death from asphyxia, and insists that it is from syncope; and therefore suggests, for the consideration of the medical profession, the propriety of tying the navel-string immediately the nates are expelled, by which means a large majority of children preternaturally presented will in future be born alive.

Marvellous.—A Professor of Botany, of the faculty of Abou Zabel, near Alexandria, found that, while the cholera was raging in that country, many of the gramineæ exposed to the north wind, such as maize, &c., were suddenly destroyed. The leaves were immediately covered with a layer of viscid matter, on which myriads of microscopic insects were observed. This matter was of an acrid character, and irritated the skin. The diseased leaves proved fatal to cattle fed on them!!!—[These insects far surpass the celebrated *aphis vastator* of which

we have heard so much in this country in connection with the potato disease.]

Cholera.—Thirty or forty persons have died daily of this disease in Bagdad, and nearly the same number at Bassora.

INJUNCTION.—THE LONDON MEDICAL DIRECTORY.—His Lordship the Master of the Rolls, has granted an injunction against John S. B. Budgett, of Temple-chambers, Fleet-street, and John Johnson, of Brook-street, Holborn, to restrain them from printing and publishing a work under the title of "The London Medical Directory," the same being pirated from an elaborate work, bearing a similar title, published by Mr Churchill, the medical bookseller.

OBITUARY.—At 83, Summer-hill, Dublin, on the 23rd ult., John Bickerson Flanagan, Esq., late surgeon of the 4th Dragoon Guards, in the 62nd year of his age.—On the 1st inst., at Greenwich, deeply regretted by his numerous friends, Mr. John Hope, surgeon, second son of the Rev. W. J. Hope, in the 26th year of his age.—On the 1st inst., at Hereford, F. B. Glasspoole, M.D.—On the 23rd ult., at Morefields, near Aberdeen, John Cameron, late surgeon, R.N.—At Brighton-place, Portobello, 1st instant, Mr. James Lawrie, surgeon.—January 4, at Andover, in his 83rd year, P. H. Poore, M.D. January 6, at Studham, Herts, Thomas Sweeny, Esq., surgeon. Jan. 7, at M'Farlane-street, Glasgow, George Black, Esq., surgeon. Dec. 29, at his residence, the Great Salterns, near Portsmouth, Francis Sharp, Esq., formerly surgeon, &c., of that town, aged 77. Jan. 5, at his house, 19, Abercromby-place, Edinburgh, J. Henry Davidson, M.D., one of her Majesty's Physicians in Ordinary. Nov. 26, at Parma, the celebrated Italian Professor Tommasini, aged 76. Dec. 17, M. Broussonet, Professor of Clinical Medicine in the School of Montpellier, aged 80. Dec. 23, in Dublin, John Bickerson Flanagan, Esq., late Surgeon of 4th Drag. Guards, 61. Jan. 1, at Hereford, F. B. Glaspole, Esq. M.D. Lately, Peter Milner, Esq. surgeon, of Mirfield, near Dewsbury, Yorkshire. Jan. 10, J. E. Jones, Esq., of the firm of Warren and Jones, surgeons, Gravesend, Kent, in his 36th year.

#### MORTALITY TABLE.

For the Week ending Saturday, Jan. 9, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1386	1068
SPECIFIED CAUSES...	1381	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	164	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	94	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	192	170
Diseases of the Lungs, and of the other Organs of Respiration....	611	354
Diseases of the Heart and Blood-vessels.....	67	32
Diseases of the Stomach, Liver, and other organs of Digestion.....	90	70
Diseases of the Kidneys, &c.	19	8
Childbirth, Diseases of the Uterus, &c.	17	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	13	7
Diseases of the Skin, Cellular Tissue, &c. ....	4	3
Old Age.....	91	81
Violence, Privation, Cold, and Intemperance.....	89	30



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A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

By SAMUEL WRIGHT, M.D.,

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*Diet treated of generally; the subject novel, but yet necessary in Clinical Medicine; not practically enough treated of in Materia Medica; Clinical elucidations of it useful; necessity far considering diet in the treatment of disease; effect of a fit of dyspepsia suddenly induced by an indigestible meal; ratio of dyspeptic cases at the Birmingham Dispensary; common causes of dyspepsia; bad food, insufficient food, too rich food, too much indulged in; appetites of Englishmen; dyspeptics at watering-places; inclinations of the poor to luxury; examples; forgetfulness on recovery from disease; causes of the success of watering-places, &c.; effects of error in diet; effects of certain forms of diet; tea; grilled beef; pork-pie; conclusions.*

GENTLEMEN,—The last subject, in connection with the generalities of Clinical Medicine, upon which I have to dwell, is DIET. I am aware that there is some novelty in embracing such a topic, in such a course of lectures as this; and, were I to look for a precedent, perhaps I might have some difficulty in finding one. However this might be is a matter of little consequence to myself, and, I hope, of less consequence to you. I am always inclined to defer to examples that are worth imitating—I hope to avoid those that are worthless—and, wherever example may be wanting, I am the last man to hesitate in steering an independent and, it may be, a strange course, when the results of it promise a reward worth having. Such I shall think the issue of this evening's dissertation, provided I can thereby communicate to you any information calculated to advantage you now as students, or hereafter as practitioners.

It may be objected that the subject of diet is comprehended in the lectures on *materia medica*: this is perfectly true, but it is there treated of as a matter of *theory*, and of *practice without illustration*. Here we shall treat of it as a matter of *fact*, and *illustrate it as amply as possible*. We shall make it, in fine, what everything ought to be that appertains to the clinical chair—*practical*. In this respect, it being premised that the subject of diet is important and necessary to be well understood, the *clinical* elucidation of it has all the advantages over the more *theoretical*, that a *bonâ fide* bedside medical discourse has over the drier and less tangible detail in the exclusive “theory and practice of physic” lecture. The one comes directly before you, with its *living evidences*, either personally observed of yourselves, or communicated with the freshness that belongs to recent experience and

observation by your teachers; the other is a matter of duller and more deliberative study, in which the senses and the more active faculties have little participation.

It appears to me to be further important that the subject of diet should receive some consideration from the clinical chair, inasmuch as the unexplained dietary of the hospital gives the student very little idea of the alimentary treatment of diseases. The diet table, in fact, no more accounts for itself and for its varied usages, than will a set of formulæ acquaint us with the *rationale* of their exhibition in the manifold diseases to which such things are too often unceremoniously applied. It is possible—I have known more than one instance of it—that a student may be very expert at prescribing this formula and the other, without in the least degree having a scientific reason for doing so, and, indeed, gaining no knowledge from this empirical mode of treatment; and in just the same manner may he also be conversant with all the items in the dietary of a hospital, and yet go into private practice without being able judiciously to advise one aliment in preference to another.

The result of my experience, hitherto, tells me that a due regard to the condition and supply of the alimentary organs is one of the most effectual means both of preventing and remedying disease. There is no organ of the body with which the gastro-intestinal apparatus is not immediately or remotely connected in function; nor is there any organ which, being disordered, would not experience an increase of its disorder on an accession of irregularity in the elementary process of nutrition. There is no saying what mischief a fit of dyspepsia may do. In the professional business of your after life, this dyspepsia will be an everyday opponent with which you will have to contend. It will be well for you to be provided against its various difficulties.

In the five years and a half that I have held the office of physician to the General Dispensary in this town, I have seen at the institution itself, independently of home-visiting, rather more than five thousand patients. Of these more than five hundred have been the subjects of dyspepsia, seemingly *per se* (though we know there cannot, *pathologically speaking*, be such a thing); and at least five hundred others have suffered from ailments which indigestion has either originated or aggravated. I have watched the majority of these cases with much care, and am fully satisfied of the truth of what I now tell you. I am not aware that Birmingham is singular in this respect per-

haps the history of any other town would furnish items corroborative of those I have given.

In looking at this prevalence of dyspepsia, it becomes us to inquire into the cause of it. In a very great majority of cases, I am certain you will find this to be in the solid and fluid materials habitually swallowed.

Were we just now situated in that part of our unhappy sister country where cold and hunger furnish their victims daily and by wholesale, I think we should find that dyspepsia, in its worst forms, was rife amongst the miserable many who are being fed with food not suited to human sustenance. Seaweed, potatoes all but poisonous, and scraps of offal revolting in its putrescency, must be doing murderous work amongst the ill-fated sufferers, who find in these things their only remedy against direct starvation.

To look from these to a very different class of people—the habitual *gourmands*, whether met with in aldermanic or other circles—we find them illustrating the truth of the adage, *plures crapula quam gladius*. An Englishman, you know, is proverbially regarded by other countries as prone to gluttony. Our Continental neighbours, especially, look upon us as making the grand mistake of *living to eat*, instead of *eating to live*. I hope there are many exceptions to the sarcasm amongst us, and yet I fear many a prodigal illustration of it might be found in the better walks of society. If you wish to trace the effects of gastric indulgence, visit any of our watering-places that are famous for the salubrity of their atmosphere and the aperient qualities of their springs. There you will see the bloated face and rotund figure of the man devoted to turtle and venison; the sallow complexion and sunken cheeks of him whose satiated appetite prompts to spices and rich condiments and spirits, to beget an inclination to eat, and to help the pallid stomach to its offices of digestion; the gouty and rheumatic, that tell of late hours and luscious wines, and the many indulgences that do the body disservice and the mind dishonour: all these, and many more, are the evidences you meet with of the “vanity of human wishes,” and the danger of gratifying the unworthier of them.

Not to the higher circles, however, are these gastric abominations confined: even the poor are prone to luxuries whenever the opportunity of obtaining them may fall in their way. It would really seem to be in some sort a cardinal error in the constitution of certain minds. It has often occurred to me to observe, in distributing the



charity of our General Dispensary to the most necessitous of its patients, that they will almost invariably choose such things as promise to gratify the palate rather than to do the system service. The old smoker or chewer of tobacco has expressed a wish for his favourite "weed" in preference to good food that would help his stomach and his strength; women who have seen better days, and therein had been habituated to the "cup that cheers but not inebriates," have preferred a pinch of hyson and bohea, with dry bread, to the latter with a proportionate allowance of good meat; the wasted mechanic, once in the receipt of ample wages, and indulgent of good living, has chosen a moiety of the food meant for him, that the equivalent of the rejected half might be furnished in a pot of beer; whilst the sot "of other days," in expressing a loss of appetite, has also avowed his inclination for a glass of spirits.

It is, perhaps, not a matter of surprise that indulgences, once easily obtained and luxuriously enjoyed, should be again coveted, when they appear temptingly to reoffer themselves after a painful absence; and yet it would seem singular that adversity should not discipline the human mind, and, teaching it how the necessities are to be preferred to the luxuries of this life, teach it, also, to reject the latter and choose the former, when these only seem likely to be available. Such, however, is not the case: whilst bodily oppression and pain bow down the spirit, it obeys, subserviently, the advice of the physician. Let the body recover, and the doctor and his drugs are alike laughed at. Mark the fattened, feverish dyspeptic! How patient he is over water gruel, and weak tea, and the plainest food; how willingly he retires to an early bed, and how anxiously he awaits the hour that brings him the medicine he hopes to do him good! Let that good be done, and that constitution recover itself, and the odds are many that the gratitude of the individual is shown in his directly returning to the very source of all his previous suffering. He will feast and fill himself again, until again satiated, and be the same patient creature he was aforetime, whilst the obstacles are being removed that stand between his appetite and its indulgence. See the victim of gout writhing under the pangs of that most painful visitation! He inwardly repents himself of his errors, and outwardly vows that he will be guilty of them no more for ever. See him freed from the fiend that tortured him, and he drinks to his renovated health and the future absence of his old enemy. He once more betakes himself to the bowl and the glass, until he is again the martyr of their poison!

Thus it is that dyspeptics rarely allow themselves to get thoroughly well, or, having attained this happy condition, rarely allow themselves long enjoyment of it. The success of remedies and regimen suggests a belief in the impunity of indulgence, and thus it is that spas, and bathing-places, and fashionable water-doctors, find plenty of periodical candidates for their restorative services. These things, however, have their limit, and often it is a narrow one: upon the best constitutions, even, dissipation finally tells its own tale, and the man who, in the prime of life, ought to be hale and hearty, has literally produced his premature decrepitude, and dug his own grave!

Bear constantly in mind, gentlemen, the infirmities of human nature upon the subject concerning which I am now discoursing to you. It may happen to you but seldom to meet with a patient inordinate in the gratification of his appetite; but you will very rarely meet with one that is not in some wise a sufferer from this indulgence, venial though it be. The most trifling deviations from a correct system of dietetics will suffice to put some people into sad disorder. One of the worst cases of convulsions I ever saw in my life arose thus:—It happened, several years back, that I was hastily summoned to visit a female, said to be in fits; and, in truth, she was in fits of no common kind. It required the united efforts of four strong people to restrain her, and their services were scarcely sufficient, for she more than

once broke loose from them, and, dashing herself upon the ground, rolled about in seeming agony. Her eyes stared wildly, her jaws were firmly fixed, and her livid lips covered with foam. She replied to no questions, and was altogether so violent as to prevent any administration to her relief. Whilst I was deliberating what to do, she suddenly eructated an immense volume of flatus, and in a moment her convulsions ceased; in a few seconds further, after gasping once or twice, she vomited a large quantity of material that proved to be veal, bacon, and potatoes. Directly after the vomiting she became perfectly sensible, and then informed us that all her struggling arose from an agonizing pain in the stomach, which she was unable to speak about, and which completely overwhelmed her. I then learnt that veal almost invariably disagreed with her, yet she was particularly fond of it, and on this occasion had eaten very heartily and ravenously of it.

Infants at the breast, you know, are particularly liable to be affected by whatever is likely to contaminate the mother's milk. In proof, I may mention to you a case that happened at the Dispensary about a fortnight back. A suckling-woman was ordered ten grains of Dover's powder, to relieve some pains that she suffered from. In a few hours after she had taken it, the child fell asleep, and *slept without intermission from midday on Saturday until the evening of the following Tuesday.* It then fairly woke up, and has since showed no signs of having been hurt by its protracted slumber.

Strong mental emotion on the part of the mother will often cause the milk next drawn by the child to purge and vomit it; occasionally, convulsions have resulted from this—and even death. So, on the other hand, will errors of diet materially affect the milk, and cause great suffering to the infant. I have known an indulgence in home-made wine, in cider, and pickles productive of terrible mischief in this way.

It frequently happens that patients come before you complaining of gastric troubles, due either to recent indulgence or to the moderate use of food that happens to disagree with them. With some people there is such an idiosyncrasy in reference to particular articles of diet that they are wofully disturbed by them. These peculiarities you generally find to refer to fish, especially cod, salmon, eels, oysters, and muscles; but they are occasionally observed in connection with flesh—such as pork and veal; cheese, again, is the antipathy of some people, and butter of others.

If a patient consult you for dyspepsia, never forget that this is owing to some cause or other; and let it be one of your first objects to find out what this cause may be. This being discovered and removed, your patient's road to recovery is generally a very short one. You may exhibit aperients, and stomachics, and tonics, *ad infinitum*; but you will not remedy a dyspepsia whose cause is permitted a continuance. The man who has a pale furred tongue, and fetid eructation, and epigastric tenderness through sedentary occupation in an impure atmosphere, will be better relieved by fresh air and exercise than by bitter potions and cathartic pills. The glutton, who gobbles down his food like a turkey-cock, and never thinks of leaving off a meal until he is absolutely unable to swallow any more, will not recover from his flatulence and spasm and heartburn, unless you teach him to eat at a moderate rate, and in moderate quantities.

Always make a point of inquiring what meals, and of what quality, your patient takes, and what are his sensations after them. In some cases the information thus gained will lead you to a knowledge both of the cause and cure, so to speak, of the malady. Some time ago I was consulted by a gentleman on account of lowness of spirits, irritability, and sleeplessness, under which he laboured. He could assign no moral or mental cause for these things, and I learned that they chiefly troubled him in a morning, after breakfast until midday, and in the evening, from after tea, sometimes through the whole night. I learnt further,

that he was in the habit of drinking somewhat profusely of strong tea for his first and last meal of every day, and, suspecting that this might have some share in his annoyance, advised him to take coffee in its stead. From the time he began this change he began also to mend, and was finally quite relieved of his distress, without being indebted to the intervention of a single dose of medicine.

During the prevalence of ailments not immediately connected with stomach disorder, this, occurring through the use of improper food, will often cause an aggravation of them. I am at this time attending, with my colleague Professor Knowles, a gentleman suffering from nervous debility consequent upon anxiety and over-study. Amongst other things I at first advised him was to substitute a lightly-cooked mutton-chop for the bacon he had been in the habit of taking to breakfast. This change of diet agreed with him remarkably well; but he one morning thought he would indulge in some grilled beef. He partook heartily of it, and in half an hour afterwards was purged excessively three or four times, at the same time experiencing severe pain in the stomach, and distressing nausea. It was not until after three or four days that he recovered from the effects of his injudicious meal. A short time back I was attending, with Mr. Wood, of this town, a gentleman suffering from a severe attack of gout. Whilst this was favourably progressing, he one day took a fancy to some pork pie, of which he ate very heartily. Upon this shortly supervened an attack of dyspepsia that was attended with sympathetic bronchitis of a most violent kind. It was relieved somewhat by expectorants and blistering, but it only subsided as the stomach recovered its proper function.

I could multiply examples, did our time permit of the danger of neglecting to inquire into, and provide for, the condition of the alimentary organs, whatever the diseases requiring special treatment. This is much better done, however, by preventing the accession of trouble, than by relieving this after its occurrence. Tonics, aperients, and so forth, are admirable remedies when called for, but it is best to dispense with them by giving your patients such directions as, if obeyed, shall be likely to save their alimentary organs from suffering. The causes of this are numerous, but there is none more common than errors in diet. Errors in eating too much, or too often, or too fast, and sometimes in eating too little; errors in eating particular food that is indigestible, or unsuited to certain hours; errors in eating too great a variety of food, or in studying, or sleeping, directly after it. These things all require to be carefully inquired into, and corrected if possible. By doing this you will often save your patients much suffering, yourselves much trouble, and your remedies much risk of having their intention defeated. Make it a rule never to prescribe for a patient without telling him *what* to eat, and *when* to eat, and, indeed, *how* to eat! You will be surprised, in after life, to find how ignorant are people, who ought to know better, of these simple things; and you will then see the necessity of giving them due admonition on the subject of indulging their appetites. It is not in my province to treat this subject more in detail.

For minute particulars concerning diet and regimen, I must refer you to the various works that treat of these subjects.

## DUMAS ON ORGANIC CHEMISTRY. No. VIII.

### ON THE BLOOD.

(Continued from page 298.)

*Hæmatosine*—(continued).—There are several ways of preparing hæmatosine; the following is the most simple, and at the same time gives a very pure product. The other plans are, however, very similar, and in fact offer no essential modification.

Blood is to be taken, perfectly defibrinated by beating, and then dilute sulphuric acid is to be



gradually added until it is converted into a thick brownish kind of pap. We are next to dilute this mixture with a little alcohol, and throw the whole upon a cloth to allow it to drain; finally, it is to be submitted to pressure. The brown mass which we thus obtain is reacted on by alcohol, acidulated by sulphuric acid. This treatment is to be continued so long as the liquor assumes a red colour. The alcohol dissolves the colouring matter, and leaves an almost white residue, in which we find the sulphate of albumen and the globuline or caseine. The alcoholic liquors, being filtered, are to be supersaturated with ammonia, and evaporated to dryness. The desiccated residue will now be found to consist of hematosine, some salts, fatty matters, and a little extractive; it is to be freed from the latter by perfectly pulverizing it, and treating it successively by ether, alcohol, and water. This residue may be said to constitute the colouring matter almost in a state of purity; but it should be again taken up by ammoniacal alcohol, filtered and evaporated to dryness. It is next to be washed in pure water, and dried at a rather elevated temperature. When obtained in this manner, hematosine is a solid brownish-coloured body, without taste or smell. Procured by evaporating its solution in ammoniacal alcohol, in the water-bath, it is presented as a blackish-red mass, having somewhat of a metallic aspect.

It is insoluble in water, alcohol, ether, acetic ether, and most of the fixed or volatile oils, whether hot or cold; but it may be dissolved by heat in spirits of turpentine and in olive oil. Water, alcohol, and acetic ether, when containing a very small quantity of ammonia, caustic potass, or soda, readily dissolve it: these alkalis preserve their peculiar reaction, whatever may be the quantity of hematosine contained in solution with them. The colour of the liquor is of a blood red. If the solution be heated with an excess of alkali, the hematosine becomes modified; with potass it assumes a greenish colour, and is no longer soluble in acidulated alcohol. The carbonates of soda and of potass, as well as borax, dissolve hematosine very readily.

It is also soluble in alcohol acidulated by sulphuric or hydrochloric acids. These solutions have a brown colour, but change to red if the acid be neutralized; water precipitates it from these acidulated alcoholic solutions. Dilute alcohol, charged with sulphate of soda, dissolves it; this salt does not communicate a similar property to water.

Sulphuric acid does not dissolve hematosine; it removes from it a little of its iron, and leaves a brown residue, which is no longer soluble in acidulated or ammoniacal alcohol. This acid, when diluted with six times its volume of water, acts nearly in the same manner; but the residue which it leaves is partly soluble in alcohol and in ether. Concentrated hydrochloric acid acts in the same way as sulphuric acid. The brown residue left from the above is destroyed by concentrated sulphuric and nitric acids, aided by heat. Acetic acid does not dissolve it. On suspending it in water, and passing through the solution a stream of chlorine, it becomes decolorized, and the liquid will be found to contain chloride of iron.

M. F. Simon has performed some experiments to show the action of hematosine under different reagents: for this purpose he dissolved hematosine in water rendered slightly alkaline, and afterwards added acetic acid, until the solution was perfectly neutralized. Having filtered the liquid, the hematosine was precipitated from it under the form of brown flakes by sulphuric, hydrochloric, nitric, arsenic, and acetic acids.

Bichloride of mercury, after the lapse of some time, throws down flakes from this solution, leaving the liquid of a dark colour. The neutral and basic acetates of lead form with it a brown flaky precipitate, and completely decolorize the liquid. Chloride of zinc, acetate of copper, and nitrate of silver precipitate it. Chloride of iron produces a slight deposit. The yellow cyanuret of potassium and iron does not precipitate it; but, on acidifying it by sulphuric acid, brown flakes are thrown down, the surrounding liquid at the same time becoming green. Sulpho-cyanide of potassium produces in it an intense red colour, giving also a deposit of brown flakes. The salts of baryta and alum form

brownish flaky precipitates, and completely decolorize the liquid. All these reactions may be effected on the ammoniacal solution, when neutralized by sulphuric acid.

Hematosine, when heated in a retort, furnishes those products which invariably result from the destruction of azotised matters; heated in the air, it burns like the organic salts of lead, giving out a smell resembling that of burnt horn, but without melting or swelling up. If it be deflagrated with nitre, we shall discover in the residue neither phosphoric nor sulphuric acid: a proof that it contains neither phosphorus nor sulphur among its elements. When perfectly pure, the only product of its incineration is peroxide of iron—resulting from the iron with which it is combined.

M. Mulder has made a careful analysis of hematosine, and the results at which he has arrived are in perfect accordance with my own. They are as follow:—

	Arterial blood of the ox.	Venous blood of ox.	Blood of ox.	Blood of sheep.
Carbon ..	66.49	65.91	66.20	65.73
Hydrogen ..	5.30	5.27	5.44	5.28
Nitrogen..	10.54	—	10.46	10.57
Oxygen..	11.01	—	11.15	11.97
Iron .....	6.66	6.58	6.75	6.43
	100.00	100.00	100.00	100.00

From the above we may deduce the following formula:—

C <sup>44</sup> .....	3363.14	65.84
H <sup>44</sup> .....	274.55	5.37
Az <sup>6</sup> .....	531.11	10.40
O <sup>6</sup> .....	600.00	11.75
Fe .....	339.21	6.64
	5108.01	100.00

M. Lecanu found rather more iron than M. Mulder.

The following are the results arrived at by different experimenters:—

	Oxide of iron in cents.	Iron in cents.	Observers.
Blood of man .....	10.00	6.93	Lecanu.
Blood of ox .....	12.85	8.90	Lecanu.
Arterial blood of ox .....	9.60	6.66	Mulder.
Venous blood of ox .....	9.62	6.75	Mulder.
Blood of ox .....	11.50	7.97	F. Simon.
Blood of sheep ..	9.30	6.45	Mulder.
Blood of chicken..	8.34	5.78	Lecanu.

Hematosine combines with acids. It absorbs gaseous hydrochloric acid at the ordinary temperature; at 100° C. this compound loses a moiety of the acid which it contains. M. Mulder has assigned to it the following composition:—

C <sup>88</sup> .....	61.71
H <sup>91</sup> .....	5.21
Az <sup>12</sup> .....	9.76
O <sup>12</sup> .....	11.01
Fe <sup>2</sup> .....	6.22
Cl <sup>3</sup> .....	6.09

If a stream of dry chlorine gas be directed on hematosine, which has been previously desiccated at a temperature of 130° C., it absorbs nearly half of its own weight of it. M. Mulder gives to this composition the formula:—

C <sup>44</sup> .....	43.32
H <sup>44</sup> .....	3.54
Az <sup>6</sup> .....	6.84
O <sup>6</sup> .....	7.73
Fe <sup>1</sup> .....	4.37
Cl <sup>12</sup> .....	34.20

M. Sanson has found in the blood a yellow colouring matter, on which the tint of the serum depends, and which has some analogy to the colouring matter of the bile. It may be obtained by washing well dried ox-blood in alcohol, which menstruum takes up some salts and fatty matters; afterwards, the residue is to be treated by distilled water. The yellow matter is dissolved in this liquid, and there is left, on its evaporation, a residual mass having a saline taste; by reacting on it by pure alcohol we obtain a solution of a golden yellow colour.

M. F. Simon states that he has discovered a peculiar colouring matter in the blood, to which he has given the name of *hemaphæine*. It is chiefly

distinguished from hematosine by its solubility in water and in ether, and by the intense red colour which it gives to alcohol. He believes the yellow matter of Sanson to be analogous to this.

The foregoing matters have not been sufficiently studied for us to enter more particularly into them; they are very probably mere modifications of the normal colouring matter of the blood.

MM. Lassaigue and Lecanu have met with a blue colouring matter in the blood of jaundiced patients. M. Chevreul has pointed out a similar principle in the bile; hence, probably, the reason of its being found in the blood in cases of jaundice. M. Sanson has discovered this blue matter in normal blood. To procure it, we have merely to precipitate the blood by basic acetate of lead; to dry the residue, and take it up again by alcohol at 0.800, which dissolves this matter and colour it blue. The solution is then to be evaporated to dryness; the residue washed in water and ether (cold) and, lastly, in alcohol, at a temperature of 40° C. We thus obtain a brownish product, which is soluble in boiling alcohol, and which gives to it a sky-blue tint. This colouring matter is insoluble in alcohol, ether, and water, when cold. It is dissolved by boiling alcohol, and is deposited from it on cooling. The concentrated acids (excepting sulphuric) do not affect it. Ammonia, when added to its alcoholic solution, colours it green; the acids restore to it its blue tint. Chlorine decolorizes it. The acid solution contains no iron.

By spontaneous coagulation, the blood is divided into two portions: the serum and the clot. The serum holds in solution the albumen of the blood and the soluble matters. The clot may be regarded as containing the insoluble portion, the fibrine, and the globules; it also contains some serum, which may be readily abstracted from it. We shall at once understand that, if we could succeed in determining, in an exact manner, the relation by weight which exists between these matters, we should have made a grand step towards a knowledge of the composition of the blood; let us therefore proceed to describe the method generally followed in analyses of this kind. The numbers which we obtain are, undoubtedly, not always fixed; but I have myself found, in two analyses of the blood drawn from the same animal, that identical results were furnished, by taking the precaution of choosing an animal of large size, and not abstracting too much blood at one time; in this case, the relative proportion of the solid materials, as found in the proceeds of the two venesections, was not disturbed by the action of endosmosis. Large bleedings undoubtedly impoverish this fluid.

The blood is to be received into two vessels of equal capacity, so arranged that we shall have exactly the first and the last quarter in the one, and the second and the third part in the other. The blood in the first vessel is then to be put aside to coagulate; while that of the second is beaten on its escape from the vein, so as to separate the fibrine. These precautions are absolutely necessary to ensure an exactitude in the proportions of water and of solid materials in the two divisions of blood, collected during the one bleeding, for this fluid becomes quickly impoverished, especially in animals of small size. The next steps of the operation are as follow:—

1. We take the beaten portion of the blood in which the fibrine has been separated, and, having laid the coagulated mass on a fine cloth, we are to wash it until it becomes perfectly white; it is then to be dried, at first in a stove and afterwards in the water-bath, until it ceases to shrink any further. The beating of the blood may be effected with a small switch, or better still with the hand: in the latter case, the fibrine becomes attached to the fingers, forming around them a network something after the shape of a glove; this is very easily removed, and that without any loss.

2. We are to separate, with great care, the serum from the clot; the serum is to be dried and the residue weighed.

3. For the purpose of greater facility, we are to cut the clot into thin slices, and then dry and weigh them.

We shall thus obtain: 1. The weight of the dry fibrine, by direct determination. 2. The weight of



the solid materials of the serum, and the weight of the water which it contains. 3. Knowing the quantity of water and of solid materials of the serum, the loss which the clot undergoes gives the weight of the serum which it imprisoned, and the composition of which is known. We estimate the quantity of dry materials left in the clot by this serum—its weight must, therefore, be deducted from the total weight of the dry clot, as also that of the fibrine, which is to be calculated by reference to the total weight of the coagulated blood; the remainder represents the weight of the globules.

According to the foregoing calculation, we set down the entire liquid of the clot as due to the serum—a supposition which, probably, is not rigorously true. In any case, however, this method of analysis serves to separate three orders of matters contained in the blood, but which are, perhaps, more distinct in a physical than in a chemical point of view, namely—1. the coagulable matter; 2. the soluble matter; 3. the matter in suspension—matters which, by their variations, undoubtedly modify the vital properties of this fluid in the highest degree.

The mineral matters are obtained by the incineration of the blood, whether this process be effected in the mass or after its separation into serum and clot by coagulation.

M. Figuier has recently performed some analyses on the blood after treating it by sulphate of soda—a substance which seems to render it more susceptible of filtration. If, after separating the fibrine of the blood by beating, we mix the defibrinated portion with double its volume of a solution of sulphate of soda, at a density of 16° to 18° of Beaumé, the liquid when thrown on the filter passes through in a colourless state, leaving the globules behind. These globules should be washed in the soda solution until all their serum is removed. By subsequently freeing them from the sulphate of soda, they will be left on the filter in a state of purity. The above-named chemist succeeded in this object by heating the filter to 100° C. The globules thus coagulate and become insoluble. By now pouring boiling water over the filter, the sulphate of soda is dissolved and the globules remain behind. The liquor which is charged with the sulphate of soda, being filtered, gives by ebullition all the albumen that was previously contained in the serum, in a state of coagulation.

The proportion of water in the blood is determined by the simple evaporation of a fixed quantity of this fluid. The salts are isolated by the incineration of the residue, and then analysing it according to the ordinary plan.

By the above method we can at once ascertain that the globules are formed of hematosine, of albumen, and of fibrine. In fact, they give up their hematosine to ammoniacal alcohol. If the globules be dissolved in water, this solution may be coagulated like all other albuminous fluids. Lastly, this liquor, by simply standing in the cold, throws down a deposit of fibrine. In experienced hands, the process of M. Figuier seems capable of inducing results of great importance. It gives better promise than any other plan of affording a *qualitative* analysis of the blood—an object of great interest and utility; and, moreover, it appears susceptible of yielding very precise data, in so far as regards its *quantitative* analysis.

## ORIGINAL CONTRIBUTIONS.

### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 301.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

Even where there is "evil intention," I very much question whether the law has the right to punish a lunatic; this, be it observed, has nothing to do with the Court ordering a lunatic who has committed a criminal offence to be properly secured and prevented from ever acting again in a dangerous way, but simply regards the expediency,

or even the right a judge has, to make an example of a lunatic by punishing him; the object of all punishment should be for example, not revenge.

Instances have occurred where persons who have been imbecile from birth have committed murder, and this too not of their own will, but at the instigation of others; this was the case with Louis Lecouffe, who, though imbecile from birth, was instigated by his mother to murder a woman against whom she felt deep hatred and revenge; he was executed.

It should never be forgotten that imbecile or half-witted or silly persons are generally very easily persuaded; they can often be convinced of anything, and it is very easy to warp the little judgment they possess; and hence designing villains and expatriated traitors or foreign knaves have employed simple and weak-minded individuals to perpetrate deeds of which their abettors are not only ashamed, but even possess not the courage, to carry out themselves. The punishment should not be visited upon these imbecile tools or hirelings, but should be directed against those monsters who, in repose and quiet, design and plot such diabolical machinations.

There can be but little doubt that many of the numerous attempts made on that amiable, sagacious, and talented King, in a neighbouring country, and which Providence has so often so happily and so wisely frustrated, have been effected through imbecile or insane individuals; and the greatest precautions should be taken by the French Government to ascertain not so much the disaffected themselves, as to find who are likely to be the tools they could employ. The liberty of an imbecile or eccentric person should not be restrained, at the same time that a most active surveillance is not only under some circumstances justifiable, but most imperatively necessary; and, if proper precautions had been taken, it is hardly possible that Lecomte could have attempted his murderous scheme.

It is more than probable that this eccentric, excitable, morose, shall I say, lunatic? himself, first fancying he had wrongs unredressed, had these presumed injuries not mitigated but aggravated by traitors ever ready and vigilant to find so easy a dupe; who, while putting him forward to gratify his personal revenge, thereby hoped to attain their own guilty and wicked purpose.

Where a regular *design* has been formed for the purpose of murder, this is considered to render the responsibility of a lunatic greater. Thus, in the case of Edward Arnold who shot at Lord Onslow, no doubt existed of his being to a certain extent deranged, and that he had greatly misconceived the conduct of Lord Onslow; he had, however, formed a regular design. He was found guilty, but was reprieved at Lord Onslow's request. He died after thirty years' confinement. It was stated by the Court that he could not be guilty, if he did not know what he was doing; that partial insanity would not excuse him, but he must have laboured under such a deprivation of reason as rendered him as senseless as a brute or infant.—*Collinson*, vol. 1, p. 476.

So as to Lord Ferrers who murdered Mr. Johnson, and was tried before the House of Lords; it was proved that his Lordship was occasionally insane, and incapable from this insanity of knowing what he did, or of judging of the consequences of his actions; but because the murder was deliberate he was executed, it being ruled that he had sufficient capacity to form a design and to know its consequences.

It being held according to law that "to excuse a man in the commission of a crime he must, at the period when he committed the offence, have been wholly incapable of distinguishing between good and evil, or of comprehending the nature of what he was doing—a state of mind distinct from that which is merely unequal to the pursuit of a regular and continued line of conduct in the management of private affairs."—*Collinson on Lunacy*, 477.

It is not sound to hold that, because there is *design*, therefore the responsibility is greater. I presume no one can doubt but that Captain Purington was insane, who not only committed suicide but murdered his wife and several children, and

attempted the lives of two others. Here the letter he wrote to his brother a day or two before, commended to his care those very children he subsequently murdered; he wrote that letter when contemplating suicide, but was prevented by the hesitancy occasioned by the presence or entrance of one of his daughters; but our object here is more particularly to prove the *design*, the *deliberation*; we find that *he ground his axe*, and this instrument, a few hours after, he used to despatch his wife and children. Now, had he not terminated his own life, would not this fact of having *ground the axe*, have been strongly dwelt on, to prove the bloody design and the calculating deliberation?

One more example and we have done. We find that Martha Brixey, who murdered an infant whom she nursed, went *down stairs* for the knife with which she nearly severed the head from the body, and she was seen to *try the edge* with her thumb; and, when asked what she was going to do with the knife, said it was to cut a pencil with. Now, here there was a direct lie with subterfuge; she knew when she tried the edge of that knife what her intentions were; and, in both this case and that of Captain Purington, the sharpness of the instrument was ascertained in order that life should be more effectually taken.

To prove also the premeditation and design in the case of a Frenchman who a short time since at Walworth murdered three or four children, and then committed suicide, here the wife rushed down stairs on hearing the noise, and, when horrified at the sight which met her eyes, attempted to open the street door, *but found the chain had been twisted so as to prevent the possibility of its being opened*.

There is an evidence of *design* in almost every suicide which occurs; and the most placid lunatic or the most dangerous maniac constantly shows the deepest design in his actions.

What more clever, what more artful, than for a lunatic when being conveyed to an asylum, or being merely transferred from one establishment to another, so to arrange as that by a stolen interview with the warder or gatekeeper he prepares him to receive his keeper, he having previously called to make him aware of the troublesome character he will shortly bring, and whose delusion consists in declaring that he is himself mad. The keeper and his patient arrive; the madman exultingly says—"Take him, there he is"; in vain the keeper protests he is the keeper; "I told you so," says the madman; and amidst cries, protestations, and threats, the keeper is hurried away to his place of confinement, while the madman quietly withdraws. This stratagem has occurred in several instances, and shows consummate resource and evident design; and the various means by which it has been effected prove the greatest ingenuity and depth of design.

It is quite possible that deep *malignity* may exist in raving mania, and even in milder cases of melancholia; and although such deep and malign feelings, even when long cherished, have often led to homicide, yet the maniac or lunatic cannot be considered criminally responsible. How can a maniac or a lunatic control his actions?—a want of self-control is an evidence of insanity.

Is punishment justified by the *degree* of consciousness lunatics possess? They kill others, and often ask others to kill them, and very frequently kill themselves; but, although there is usually considerable cunning, yet there is, when insane, generally imprudence in their design. Even when homicidal persons have been acquitted on the ground of insanity, they have often subsequently committed suicide, and it is by no means unusual for such lunatics to make repeated attempts on the lives of their keepers. It is true many such persons never again show the homicidal propensity; this may often be attributed to the absence of an exciting cause: for it is probable in many instances, where they are placid while under control and kind treatment, that, on being re-exposed to the ill-usage of society, they would again become dangerous lunatics.

It must not be thought that homicidal insanity is confined to those who are naturally ferocious, indiscreet, or melancholy, for the propensity is some-



times developed in the mild, the amiable, the most affectionate individuals, *thus proving, by the great change in their character, their want of self-control and irresponsibility.* Indeed there are various stages of this inability to restrain their deadly wishes: thus we hear of a man, who, seeing his family around him, feels an irresistible impulse to despatch them at once with the poker, but, the instinct of affection and love yet restraining him, he warns them instantly to depart, or their very presence will stimulate him to commit the deed. Here there is no malignity, parental affection can for the moment stay the deadly blow; but even this love, strong as it is, will in a few moments more yield to the instinctive and uncontrollable desire to take away life.

It sometimes happens that a person suffering from melancholia feels life to be intolerable and disgusting, and while knowing suicide to be highly criminal, by that morbid perversity of reasoning, that error in judgment, which we have so often previously illustrated, he commits murder, so as to die himself by the hands of justice; in this manner imagining his sin to be less in sacrificing two or more lives, than it would have been to die by his own hands.

The most trifling causes sometimes lead to homicidal acts: thus a maniac has even committed murder to secure his removal to another place of confinement, where there might be a chance of his seeing a windmill; it having been ascertained that previously to his incarceration he frequently occupied himself for days in watching windmills, and, not being able to see his favourite object, committed so deadly a deed in order to obtain even the chance of again beholding it.

After Mr. Drummond was shot by Macnaughten, and this having occurred so shortly after several attempts had been made upon other individuals, considerable excitement prevailed upon the subject, as many persons thought such propensities should be checked by examples upon the scaffold, instead of consigning them to close confinement for life; and the House of Peers considered it expedient to put the following question to the whole of the Judges:—

“What is the law respecting alleged crimes committed by persons afflicted with insane delusions in respect of one or more particular subjects or persons? As for instance, when, at the time of the commission of the alleged crime, the accused knew he was acting contrary to law, but did the act complained of with a view, under the influence of insane delusion, of redressing or revenging some supposed grievance or injury, or of producing some supposed public benefit?”

The Judges, in answer to this question, thus replied:—“Assuming that your Lordships' inquiries are confined to those persons who labour under such partial delusions only, and are not in other respects insane, we are of opinion that, notwithstanding the party accused did the act complained of with a view, under the influence of insane delusion, of redressing or revenging some supposed grievance or injury, or of producing some public benefit, he is nevertheless punishable according to the nature of the crime committed, if he knew at the time of committing such crimes that he was acting contrary to law, by which expression we understand your Lordships to mean the law of the land,”—but which we presume the Judges consider is opposed to the law of *reason* or of *humanity*.

When a murder has been committed, and there is a question whether the murderer was insane, it will be important to inquire what motive the prisoner could have had; whether any apparent reason existed for the action, and, if so, whether such reason was founded upon hallucination? It is necessary to ascertain whether the culprit had ever attempted suicide, whether he wished for death, whether he was dejected, shy, suspicious, eccentric, or morose, and particularly as to whether there existed any predisposition to insanity, or whether epileptic, or even hypochondriacal? again, was the homicide without robbery, or without any personal interest or advantage?

It should ever be remembered that epileptics, when holding delusions, are not only highly dangerous and homicidal, but they often commit most

indecent and brutal crimes, their passions frequently appearing to be specially excited; and in criminal cases it is highly important to bear this fully in mind.

It may to a certain extent assist, in considering how many victims have fallen: the murderer generally kills one, while a lunatic may slaughter several; also whether there were any accomplices, as a lunatic would never, under ordinary circumstances, obtain any one in a sound state of mind to assist him. We should also endeavour to trace the whole circumstances, the time the murder was effected; whether there was any malice or premeditation, and especially whether any attempt was made at escape; as it is very generally observed that the maniac yields himself up at once to justice in an apathetic and careless mood.

It is probably of even more consequence to weigh the whole circumstances of the case, than to depend upon any individual fact; and, although the number of victims which have fallen do not afford a proof of insanity, yet, coupled with other circumstances, it may materially aid in the investigation.

Although it is necessary to enumerate such guides for inquiry, yet it often happens that the probable conduct of a lunatic is departed from in particular instances; this much depending upon temperament, character, and former habits, or education, no general rules can be laid down; for instance, most maniacs surrender themselves after committing murder, yet they do sometimes escape, and it is only humane and just that this should be remembered; it was strongly exemplified in the case of Dadd, who murdered his father at Cobham, he immediately went over to France, where his excited state attracted attention; he was brought over to England, but not before he had endangered the lives of some persons with whom he travelled when in France; no doubt whatever existed of his maniacal condition. So Jonathan Martin also absconded after he had fired York Cathedral, and was only taken, after considerable trouble, in the north of England.

In the case of John Howison, who murdered the widow Geddes in Scotland, great stress was laid upon his hurried escape immediately after he had murdered the woman; but in the case of Bellingham, who shot Mr. Perceval, no particular notice seems to have been taken of his having quietly surrendered himself. His whole conduct, both previously and subsequently to the act, appears that of a madman.

Dr. Prichard says he was assured by a member of the House of Commons, that Bellingham could easily have escaped during the confusion which took place in the lobby of the House, but that he sat down quietly, and apparently with perfect indifference, awaiting the event. And, it appears, he at the same time stated, that it did not signify to him which of the Ministers he destroyed; but he was very sorry it happened to be Mr. Perceval, on account of his family. This being just a parallel to a case we have observed, where the young man would not murder the young woman who had offended him, because she might not go to heaven, dying perhaps in a state of unrepentance; but he victimizes an infant, whom he presumes must necessarily find acceptance. In these cases, although the motive may be bad, yet there is no personal animosity, or rather no evil intended, against the selected or accidental victim; the presumed injury has to be atoned for, but the atonement is effected in an irrational manner. It affords a far higher proof of insanity when the criminal, even for a supposed injury, seeks his vengeance on another, and not on the party actually offending.

The evidence of the hereditary tendency is now received in criminal cases. In *Reg. v. Truchet* it was wished to strengthen the plea of insanity by evidence that the grandfather of the person accused had been insane. Judge Maule said—“I know these questions are generally admitted. It is a matter of fact, and not a matter of law, that insanity is often hereditary in a family; but I think you should prove that, in the first instance, by the testimony of medical men, and then your question will be legitimate.”—*Law Times*, p. 50, vol. iv., 1844.

The evidence of hereditary tendency was also

received in the case of Oxford, who shot at her Majesty; and was also allowed in the case of Gibson, tried before the High Court of Justiciary, Edinburgh, for fire-raising.

After criminal acts, madness is often feigned, and it is sometimes very difficult to ascertain the true character of the case; it is a defence more frequently set up than any other, and is consequently becoming of increasing importance; scarcely any execution is now ordered without the friends of the culprit putting in this plea; and the great point for the medical inquirer to bear in mind, is truth and candour; he should neither be inhuman nor yet indulgent. He should be extremely cautious also how he receives confidential communications, it being ruled that these must be revealed in a court of justice when required. Upon the opinion of a medical witness, who has *merely* heard the evidence and facts adduced at the trial, a criminal may or may not be acquitted on the ground of insanity; thus in *Rex. v. Searle*, a physician was asked whether the facts and appearances proved showed evidence of insanity, and on his opinion the prisoner was acquitted on the ground of insanity.—2 *Moody and Malkin, N.P.*, case 75.

Insanity is seldom sudden in its attack, but there are generally precursory symptoms, and, even when a person does become insane at once, the impulse to kill would not probably immediately arise; but when a criminal feigns he becomes mad all at once. It is important that a prisoner should be watched, and in such a manner as that he is unconscious of being under observation. Often when left alone, there is no paroxysm, but it returns on any one approaching. The pretender overacts his part, and never endeavours to conceal his madness, he becomes more absurd and incoherent when the medical man or the keepers are in his presence, but this is not usually the case with real lunatics; he also sleeps, as it is so difficult to simulate vigilance or watching for two nights together. It is also advisable, when still in doubt, to make the prisoner write, and this will sometimes at once expose his erroneous perceptions.

A person who is insane seldom gives a direct answer, but evades it; he tries to conceal his delusion, and, if contradicted, becomes enraged, and perhaps resents the supposed insult; he often also conceals bodily indisposition.

There is a peculiar irritability about a lunatic, which occurs so suddenly on the slightest contradiction, that this should be especially remembered. We should also notice whether the prisoner is submissive and pusillanimous, whether he delivers himself with rapidity, as when insanity is counterfeited there is more reflection. Generally, when wishing to make an impression, the prisoner becomes very violent, and represents the most furious mania, it being more rare and difficult for him to assume melancholia; but, above all, his physiognomy should be closely investigated, as it is next to impossible to represent the particularity of look peculiar to lunatics.

There must necessarily be great difficulty in detecting whether insanity is or is not feigned; and the conversation, correspondence, and general conduct should be minutely noted. It has been found that insane people are less guarded in what they write, than when influenced and checked by the presence of those with whom they converse, consequently they should be encouraged to carry on a written correspondence; and it might much aid in the inquiry if any letters could be obtained which had been written a short time before the criminal act had been committed; the absence of the confirmation or the negative evidence would not of course prejudice a prisoner, while any corroboratory proof with the present confirmatory facts would most probably at once indicate irresponsibility.

A man may feign dumbness, be arraigned and ordered for execution, and subsequently acknowledge his dissimulation; so a soldier, wishing to obtain his discharge, has pretended blindness, and everything which ingenuity could possibly adopt to detect his imposition was tried, some of these, apparently to himself, placing him in the greatest danger, as by leading him into a rapid river. After some months his certificate was signed, he was dis-



charged, and his eyesight was immediately restored!

The plea of insanity has been even disavowed by a prisoner, when urged to do so by his friends. Fodéré was nearly deceived by a female criminal, and was about to certify that she was insane; he returned, however, to her cell, and said, "Tomorrow I shall visit her again, and if she continue to howl, and is not dressed, and everything properly arranged in her chamber, I shall order a hot iron to be applied between her shoulders." On the morrow she was dressed and washed, and had remained quiet since the doctor left. In a few days more, Fodéré certified that her mind was not affected.

Although a *non-compos* should not be punished for crime, yet, if he injure the person or property of others, his property is liable for damages, it being held that the intention is immaterial, if the act be prejudicial.

If a prisoner become insane after judgment has been passed, execution may be stayed, because it is held that possibly the prisoner might have adduced some reasons why his sentence should be reversed; so judgment cannot be pronounced upon a lunatic, and, indeed, King Alfred actually hanged Cole for passing sentence of death upon a person when out of his senses. There was a law passed 33 Hen. VIII., c. 20, by which a person, being *compos mentis*, who committed high treason, though subsequently becoming insane, might be tried and executed as if perfectly sane; but this barbarous act was happily repealed in the next reign by 1 and 2 Philip and Mary, c. 10.

Ungovernable passion, however sudden, the phrenzy of intoxication, or mere eccentricity, however absurd, does not constitute insanity.

By the law of England, a man who commits a crime when under the influence of liquor is held responsible for that crime, and there can be no doubt of the justice and the general necessity of such an enactment; still there may be mitigatory circumstances. Thus drink makes one man stupid, another quarrelsome; the one perhaps murders, while the other remains lethargic. Now, these men are both responsible for the beastly state of intoxication in which they have voluntarily brought themselves, but it may so happen that the man who when drunk is homicidal, may be a more quiet, amiable, and placid person, than the other on whom drink acts merely as a sedative; and yet the one is locked up for the night and discharged the next morning, while the other expiates his deed on the scaffold. This is the difference in temperament; and predisposition or idiosyncrasy can no man alter; justice, tempered with humanity, should always guide the judgment in such cases. Delirium tremens is generally caused by frequent intoxication, but a person who commits murder in the phrenzy of such delirium is not considered responsible; so that delirium tremens, although produced by intemperance, is received as a plea in criminal cases, while drunkenness is rejected. There can be no doubt of the wisdom of such distinction, although it at first sight appears somewhat paradoxical; and it would be far more justifiable to prevent a man from incurring that phrenzy which results from delirium tremens, by placing him at an early period under such restraint as to prevent him from getting drunk, rather than punishing him for his acts, however criminal, when clearly resulting from disease, even though such malady is the result of his own imprudence.

There have been several instances of late years of captains of traders drinking to excess, and, when under such excitement, mutilating or even murdering some of their crews; partial insanity has been frequently the plea, but in the absence of evidence upon which dependence can be placed, it would be prejudicial to the interests of society too readily to admit such a defence.

Intoxicating drinks act very powerfully on the insane; they often produce the greatest excitement; they cause the most furious phrenzy. If unhappily under such circumstances a person proved to have been insane previously to committing any criminal act, or if confined in a lunatic asylum, he must be held irresponsible for any act, however calamitous, provided the deed was executed while under the

intoxicating fit; if punishment is to be visited anywhere, it should be upon those whose indiscretion or want of necessary precaution has led to the deplorable result.

(To be continued.)

#### CASE OF COMPOUND FRACTURE OF THE EXTERNAL CONDYLE OF THE FEMUR:

*Extending into the knee-joint, complicated with a simple fracture of the lower third of the same bone. Recovery without Amputation.*

By W. PHILPOT BROOKES, M.D.,  
and Surgeon to the Cheltenham General Hospital and Dispensary.

Master Henry Timms, aged eleven years and a half, of a pale exsanguineous temperament. He has enjoyed uninterrupted good health for the last six years, but before that time was of a very sickly, delicate habit of body.

While getting up behind a coach, on Saturday, June 28th, 1845, he fell, and the left leg got entangled between the spokes of the hind wheel. He was immediately carried home, and my attendance sought. On examination of the limb I found a compound fracture of the thigh, extending into the popliteal space. The lower end of the femur was protruding, and sufficient hemorrhage had taken place to cause collapse. On minutely examining the injury, I found the capsular ligament of the knee-joint ruptured, and an oblique fracture through the external condyle of the femur so evident that both Mr. Fricker (who kindly gave me his assistance) and myself could pass our finger between it and the joint; there was also a transverse fracture of the lower third of the femur above the joint. The popliteal artery remained uninjured. The joint was very much distorted. Under these circumstances, and the boy having rallied, immediate amputation of the limb was advised, but the father strongly objected, and would not give his consent to that measure. Accordingly, the wound in the popliteal space was dressed with wet lint, the limb put in a natural position, and a straight splint, extending from the hip down to the ankle, was placed on the outside of the limb, and a short concave one on the inside, lightly bandaged. Constant cold applications kept to the knee-joint; low diet, and 15 drops of liq. opii sed. (Battley) with an ounce of camphor mixture given at bedtime. The pulse in the evening was 90, and the boy much more tranquil than could have been expected.

June 29, twelve a.m. Slept well; pulse 80; tongue slightly furred; is moderately tranquil. Repeat the draught at bedtime; bowels not opened; ordered him half an ounce of castor oil directly. Eight o'clock p.m. Oil not operated; pulse 90, and quick.

30, a.m. The oil had not any action on the bowels; is very restless, pulse 120; thigh dressed; very little discharge, but escape of synovia mixed with blood, which still continues slightly, and has done so since the accident. The knee is much more swollen; the patella thrown out of place, and we can, on passing the finger into the wound, plainly feel between the external condyle of the femur and head of the tibia; tongue harsh and furred. Ten p.m. Bowels opened twice; tongue white, but much moister than this morning; pulse varied during the day from 120 to 90, which it is now; sleeps a good deal, and is very much more tranquil than he was.

July 1. Tongue clean; bowels not opened; pulse 80 to 90; knee less tense; discharge from it increases; is very tranquil, and slept well last night. Has been kept on low diet up to to-day, when he took an egg. Continue the cold applications to the joint.

2. Going on well; bowels not being opened, I gave him more oil; pulse 80. The anodyne draught at bedtime. Ten p.m. He had great pain in the limb this evening, and the pulse rose to 110.

3. Bowels not being acted upon, the oil was repeated; the leg was dressed to-day, it discharges much. To take a more nourishing diet. A splint was also placed on the under side of the thigh.

4. Bowels well opened; going on well in every respect.

6. Limb dressed to-day; the wound looks very

healthy; discharge less; knee less swollen; is going on well.

10. Has gone on very well since last report; swelling gradually subsiding. Takes a full, generous diet.

23. Continues to go on well; wound nearly healed, discharges very little, and pain only on moving the limb to dress it. He continued to go on well, the splints were taken off at the end of six weeks: the bone was united; the wound had healed, and he had slight motion in the knee-joint.

About a fortnight after the splints were taken off, I found the knee swell, and applied pasteboard splints, and tincture of iodine was painted over the joint every day. A small piece of bone is working out at the popliteal space; general health very good; is kept quiet in bed, and cold water douche used every morning. About two months after the splints were left off, a piece of bone, nearly an inch long, worked out of the popliteal space, and after that time all went on well.

I have been in the constant habit of seeing this lad twice a week, or oftener, since the accident, up to the present time; he has now got very good motion of the joint, in fact, can bend the leg completely on the thigh; he can also support the whole weight of the body on the injured limb, and walks very well with the assistance of a stick. I have no hesitation in stating, he will entirely recover the use of the joint. On reviewing this case, the whole credit of allowing the limb to have a chance of recovery must be given to the father of the boy, for he was strongly urged to allow amputation, but would not do so, and stated, the youth of the patient may give him some chance of recovery, and so it turns out it did. Should another similar case come under my care, I shall certainly (having regard for the age of my patient) be inclined to endeavour to save the limb before I urge amputation, as nature, combined with treatment, will do much for us with these young subjects.

I cannot find any case reported where the injury was so extensive as in this, and recovery took place; in fact, the only one at all approaching it is in a patient of the name of Dixon, reported in Sir Astley Cooper's work on Fractures. I have, therefore, given it more fully than perhaps may be deemed quite needful.

Albion-house, Cheltenham, Dec. 27th, 1846.

#### CASE OF ANEURISM OF THE ARCH OF THE AORTA IMPLICATING THE INNOMINATA AND LEFT CAROTID ARTERIES.

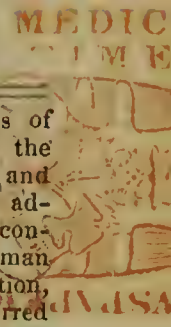
Read before the Westminster Medical Society, Jan. 9, 1847.

By PHILIP B. AYRES, M.D.,  
Physician to the Islington Dispensary.

A. B., aged 40, was seen by me, as a patient of the Islington Dispensary, in the middle of November, 1845. At this time he was somewhat emaciated, with an anxious expression of countenance, expressive of organic disease implicating the respiratory function, pallid, and complaining of a pulsatory sensation behind the sternum. He had been formerly a patient of a dispensary in the Strand. I had been told that he was suffering from disease of the heart. He had observed a gradual diminution in his health for three years, and this had so much increased of late as to have prevented him from following his occupation as a bricklayer's labourer for some months. Little complaint was made by the patient, save that above mentioned, of pulsation in the chest, accompanied by some difficulty of breathing, which caused him to need an additional pillow; together with occasional cough, and pain in the limbs resembling chronic rheumatism.

As the wife stated that he had been said to be suffering from disease of the heart, my attention was immediately called to the chest. When this was laid bare, I observed a slight prominence of the second bone of the sternum; and, on applying the stethoscope over it, a strong impulse was felt and loud bruit heard, synchronous with the contraction of the ventricles. This impulse and bruit extended to some distance from the prominent portion of the sternum, gradually decreasing in force as the instrument receded from that point. A similar bruit was heard in both the primitive carotids. Pursuing the stethoscopic examination, the sounds





of the heart were ascertained to be perfectly normal, and its impulse rather feeble. The respiratory murmur was distinctly heard on both sides of the thorax, and no dulness on percussion existed throughout the thoracic walls, except at and near the second bone of the sternum and in the cardiac region, the latter being natural. Pulsation was felt when the finger was pressed behind the upper part of the sternum in the interclavicular space; I consequently inferred the presence of aneurism of the arch of the aorta. The abdominal viscera appeared to perform their functions in an uninterrupted manner, but the function of nutrition was, to a certain extent, interfered with, as was shown by the progressive but slow emaciation. I insist particularly on the auscultatory signs observed at this time, for a reason which will be apparent in the sequel. The pulse was much smaller and weaker at the left than the right wrist. I am only able to give a general sketch of the progress of the disease, as I unfortunately kept no very connected records of the progress of the case. The impulse and dulness on percussion continued to undergo a gradual and progressive increase; the bruit in the right carotid continued up to within a short time before death, but diminished somewhat in intensity. Unfortunately the state of the left carotid was not observed after the first few visits, but the obliteration of the vessel by coagula discovered on the autopsy renders it probable that the bruit as well as the pulsation of the artery had ceased long before death took place. The lungs on both sides continued for some time permeable to air, as shown by the presence of respiratory murmur and the clear sound given by percussion. The left side, however, after a time became dull on percussion, which was attributed to the prominence of the tumour and the presence of the heart on that side of the chest. As the aneurismal tumour increased in size its pressure on the trachea and œsophagus was augmented, the breathing became more oppressed, and he was compelled to be raised higher by means of additional pillows. He was troubled with a dry cough, which was of variable frequency, and was accompanied by expectoration of a viscid mucus. The expectoration remained of the same character until within a fortnight or three weeks before his death, when it assumed a muco-purulent appearance. A corresponding pressure exerted on the œsophagus produced dysphagia, which gradually increased until only fluids or very soft food could be taken. These circumstances, conjoined with sleeplessness occasioned by the frequent cough, gradually diminished the powers of life, until he died worn out on the 15th of August, 1846. During this lengthened period, and up to the time of his death, no hectic had manifested itself; there was no abnormal rapidity of the pulse, no evening febricula, no colligative sweatings or diarrhœa, nor indeed any other general symptom by which the presence of tubercles in the lungs could be diagnosed. The dulness on the left side of the thorax might very naturally be imputed to the extension of the aneurismal tumour in that direction, conjoined with the presence of the heart on that side.

*Autopsy thirty-six hours after Death.*—The body was extremely emaciated; a slight prominence of the second bone of the sternum was observed, but no absorption of the bone. On opening the thorax, a large aneurismal tumour was discovered, of a rounded form, and four or five inches in diameter, arising from the arch of the aorta, and extending as far as the bifurcation of the innominate into the right subclavian and carotid arteries. The left lung was adherent in almost its entire extent, and the adhesions were broken down with considerable difficulty. When removed from the thorax, this lung was found to be one complete mass of miliary tubercles pretty equally distributed through its substance, and giving to it the consistence of liver. These miliary tubercles obliterated not only the air cells, but also all the smaller bronchi. A small tubercular cavity was found at the base of the lung, and two similar ones near its apex. When thin sections were made, the minute tubercles were seen filling the whole tissue of the lung. The right lung was crepitant throughout, but contained some scattered tubercles of small

size. With the exception of the vomica, all were in a crude state, and these vomica did not communicate with the bronchi. No disease could be discovered in the abdominal viscera.

The aneurism, about double the size of the clinched hand, arose from the upper side of the arch of the aorta; it was almost filled with concentric lamellar coagula of very firm consistence, which scarcely allowed a larger channel for the blood than that afforded by the healthy vessel. The outer layers of clot were perfectly white and fibrous; the inner one presented a rosy aspect, and easily separated from the more external layers. The aneurism implicated the whole of the innominate artery as far as its bifurcation, but the vessel remained pervious; the left carotid was completely obliterated by a clot which extended half an inch beyond the aneurism into the vessel, while the left subclavian remained pervious. The aneurism had exerted so much pressure on the trachea and left bronchus as to flatten them and impede the free passage of air; the right bronchus suffered less compression. The œsophagus was flattened and compressed in like manner, and separated from the trachea by a small interval. The compression of the trachea and œsophagus fully accounted for the obstruction of respiration and deglutition from which the patient suffered so severely for some time before death. The walls of the aneurism were moderately thick and resistant, except at one or two points on the posterior surface, where they were scarcely thicker than paper.

*Remarks.*—This case is of an interesting character in several points of view. It will be seen that in the preceding report I have made no mention of treatment; I have purposely done so because, in truth, the treatment was purely palliative. When first seen the aneurism was of considerable size, and the patient was then in so debilitated a state that active remedies, even if thought advisable for the reduction of the aneurismal tumour, would have been clearly inadmissible. The patient was kept in a perfectly quiescent state, the ordinary palliatives for cough were occasionally administered, and, when the rheumatic pains were severe, small doses of colchicum were ordered. The diet was of a mild, unstimulating character; but in the advanced stage of the disease, when the debility was extreme, small quantities of wine were allowed. In this case the aneurism, instead of pressing anteriorly and causing absorption of the sternum, projected backwards and compressed the œsophagus and trachea. The sac was much thinned at its posterior part near the trachea, so that, if life had been sufficiently prolonged, effusion of blood might have occurred from the bursting of that portion of the aneurismal tumour, and the blood have found an exit from the body by the trachea or œsophagus.

The fact that the whole aneurismal sac was filled with firm coagula showed that Nature had made a strong effort to effect a cure; indeed, the channel for the blood was nearly reduced to its natural dimensions.

But the most interesting feature in this case was the rapid formation of tubercles. Even when I first saw him there were no auscultatory signs by which the presence of any extensive tubercularization could be detected. The resonance and respiratory murmur were heard very distinctly over the whole of the left side—a condition that could not be compatible with extensive tubercularization such as that discovered after death. Hence the inference may be fairly drawn, that tubercles are often very rapidly deposited, so that a lung which contains only a few scattered tubercles may, in a few months, under favourable circumstances, become completely infiltrated with these morbid deposits. Professor Hasse, in his work "On Pathology," which is now in the hands of the members of the Sydenham Society, has discussed the question of the rapidity of the development of tubercles, and he arrives at the conclusion that successive deposits occur in the progress of phthisis; or that a gradual and progressive increase of these abnormal deposits takes place during the whole progress of the disease, in this manner slowly implicating a greater extent of the lung. If this opinion be correct, as I believe it to be, we can

easily understand why the auscultatory signs of phthisis are so very uncertain and obscure in the early stage of the disease, but become more and more obvious and unmistakable as that disease advances. The case I have now related yields considerable support to the opinion of the German professor, for it is evident that the greater portion, if not the whole, of the tubercularization occurred within the nine months of my attendance on this case. I may mention that I have seen a similar case of aneurism of the arch of the aorta in which the left lung became an entire tubercular mass. The crudity of the tubercles, and the want of communication of the two or three abscesses of the lung with the bronchi, prevented the expectoration of purulent matter and the occurrence of hectic symptoms. It is evident from this case that tubercularization may take place to an enormous extent without inducing hectic, provided there be no discharge of purulent matter; and hence that hectic essentially depends on the excessive loss of nutritious organic matter, in the shape of albumen, and corpuscles which are contained in all pus. The further discussion of these matters would, however, lead me from my proper subject.

#### VARICOSE VEIN OPERATIONS BY VIENNA PASTE.

*First suggested by M. Langier, of Paris, in 1839, and confirmed by frequent successful Operations in England in the same year.*

By Dr. CLAY, of Manchester. Reported in the "Lancet" of 1839, 40, 41, 42. Now claimed as an original application by F. C. SKEY, Esq., in the "Medical Gazette" of August 7, 1847.

SIR,—I felt no little surprise to see in "Braithwaite's Retrospect," just issued (Dec., 1846), a copy of an article of yours from the *Medical Gazette* of August 7th, 1846, proposing a new operation for the successful cure of varicose veins. I am very sorry that, not having an opportunity of seeing the *Medical Gazette*, I did not see the article in question sooner. By the manner in which your article is written, it is evidently your intention to be considered as suggesting to the profession an original mode of your own, for in the detail you make use of such expressions as the following:—"The treatment of my past experience," "I can pledge myself," "The material I employ," "So far as I have seen," "I commence the treatment," with many other similar expressions, in which the letter *I* stands prominently conspicuous. Again, throughout the whole article there does not exist the slightest allusion to any other practitioner; a perfect silence on the claims of any one but yourself. This being the case, I cannot but consider you must be deplorably ignorant of what has been doing in the profession for the last five or six years, or wilfully blind to its progress in any other part of the world, except the immediate vicinity of your own residence, or you would have known passing well that you had not the smallest possible claim to originality in the practice proposed by you in the article I allude to, in August last. Had your reading been equal to the position you have assumed to yourself in the profession, you would not need to be told that the practice of obliterating the varicose veins by Vienna paste was due to M. Langier, of Paris, in 1839—a practice which he illustrated with great success in a large number of cases, the results of which were reported in the *Lancet* of 1839 and 1840; you would not need also to be told that *I was the first person in England* that confirmed the valuable practice of Langier by frequent successful operations with the Vienna paste. In conducting this delicate operation, however, I flatter myself that I in some degree improved on the practice proposed by M. Langier, and the result was equally satisfactory. The results of my numerous cases were recorded in four separate communications to the *Lancet*, commencing in 1839, and continuing to 1842, which may easily be referred to. In the *Lancet* of 1841-42, you will also find the remarks of Dr. Scratchley, on the merits of the operations practised by M. Langier, M. Bérard, and *in England by myself*. All these articles were illustrated by numerous cases, and



therefore so much the more valuable. Now, Sir, with all this accumulation of evidence, can it be possible that you could plead *ignorance*? and, if not *ignorant*, what other motive could induce you to write an article without the slightest acknowledgment of any one but yourself in a matter so frequently published before? You do not even bring forward a single case to confirm your views. As to the use of the caustic potash alone, that practice is of very old date, even so far back as Ambrose Paré, Guillemeau, &c. In fact, there is not in your article the slightest claim to originality, save and except your bold appropriation of the views, practice, and experience of others. *In that I do not envy your notoriety.*

Since my communications in 1839, and up to 1842, I have repeated the practice frequently and successfully, but in no case have ever operated more than four times on the same limb. "*You say twelve times on the same limb*"—a point in which I do not envy you, as I have never seen such an extensive system of cruelty necessary. I believe I have had to deal with as bad varicose limbs as any other person living, but have always found four applications amply suffice to obliterate all the diseased trunks.

There is another remark of yours I cannot pass over, and for the sake of correctness I have procured the *Gazette*, and quote the passage literally.

"In some few examples the suffering has been remarkably slight, such persons having prosecuted their various occupations from the day of operation."

Surely, Sir, you cannot be serious in this statement; is it possible that the continuous destruction of so vascular a tissue for four or five hours can be esteemed by you as *remarkably slight*? How true it is that surgeons feel not the pains they inflict. Again, can you for a moment justify allowing a patient to go to any occupation, *however slight*, with a large eschar on a large diseased vessel, the slightest motion of which (before suppuration has taken place) might endanger the most rapid if not fatal hemorrhage? These singular assertions lead me to conclude that your experience on this matter has been extremely small, and your judgment far from ripened.

And now, Sir, in conclusion, let me advise you in future to be just before you are generous; let me entreat you, before giving your dreams to the world, to search the records of the past, and see if some one has not preconceived you: above all, never attempt to build a temple of fame for yourself on the materials collected from the hard-earned experience of others, whose fame it should rather be your pride to confirm or contradict, not to appropriate to yourself.

I am, Sir, yours respectfully,

CHAS. CLAY, M.D., Manchester.

To F. C. Skey, Esq.

### CHOLERA, ITS CAUSES AND TREATMENT.

By W. G. MAXWELL, Esq., M.D.,  
Surgeon to the 3rd Regiment of Madras Light Cavalry.

From the public papers and private letters I learn that cholera is becoming prevalent in Europe, and I therefore consider it my duty to make my fellow-countrymen acquainted with my opinion and treatment of that disease, deduced from the experience of twenty years in India.

In 1826, twenty years ago, I published a short paper (a) on the diseases then prevailing at Madras, in which I designated cholera, "*febris congestiva*"; I considered bilious fever at the head, cholera at the foot, of the list of Indian fevers. Since then I have continued constantly to find proofs in favour of this opinion; wherever I have been, whether in China or India, I have found the fevers and the cholera, in all their varieties, in the same relation to each other. Having premised thus far, I will proceed to embody, as concisely as I can, a few heads illustrative of the nature, causes, and treatment of the disease. 1. The same causes that produce inter-

mittent fevers also produce cholera. 2. All great vicissitudes of climate and temperature, from heat to cold, or damp attended by strong east winds. 3. Hot, sultry, unusual seasons, succeeded by cold, damp east winds. 4. No. 3, referable to seasons, as well as to day and night—*i. e.*, shorter periods of time. 5. The greater the exposure of the body to these vicissitudes, the greater the liability—*e. g.*, in India the porters carrying loads to distant stations, and the ryots, or labourers—exposed and undergoing great fatigue, and then coming under the influence of the sudden vicissitudes—are those most liable to cholera. I have travelled from Calcutta to Comorin, from Comorin to Scinde, and I have found this always to be the case. 6. Cholera is most prevalent in feverish localities. 7. Cholera, dysentery, diarrhoea, and fever, always prevail together as one family. 8. Diarrhoea runs into fever or dysentery. 9. Or fever and dysentery may exist in the same person at the same time, or they may intermit. 10. The greater the exposure, the greater the liability to cholera at certain times, so according to that exposure, will be the degree or severity of seizures—*e. g.*, if an individual exposed all day to the heat of the climate, undergoing at the same time great fatigue, should then indulge to excess in spirituous liquors, and sleep in the open air exposed to the wind (with little or no covering), he will (at the season of cholera) have the severest form of the disease, and by the time he is discovered will, in all probability, be beyond the means of recovery. This is the manner in which numbers of labourers and pilgrims on the roads annually perish, and also, particularly, I have remarked the same with the crews of vessels (with Europeans and natives) in the Hoogly at Calcutta. 11. At sea, at great distance from land, there is no vicissitude of climate; the range of thermometer is steady, and the sea breeze is mild. There is then no cholera. 12. In famines, deaths, great continued heat, want of rain, strong east winds, cholera is almost always found to prevail, preceded and succeeded by fevers, dysenteries, and diarrhoeas.

#### PROPHYLACTIC.

13. In the prophylactic, therefore, the converse of the above exactly obtains, viz.:—

14. Regular and moderate living. 15. Avoidance of all excessive fatigue, and especially subsequent exposure. 16. The body to be well clothed in a flannel shirt from the neck to the pelvis. 17. The exhibition of quinine and other tonics and antiperiodics.

#### PRINCIPLES OF CURE.

18. Vomiting being the first symptom, it is to be carefully and diligently encouraged with copious, bland, warm, or hot diluents, as barley-water, or other mucilaginous drinks, to assist Nature in throwing off the congestion, in other words, to assist her in escaping into the febrile stage. Nareotics, especially in large doses, to be avoided. I consider that they paralyse the nerves and interfere with the operations of nature. The surface to be constantly rubbed dry with flannel, and the throat, back, and chest to be covered with the same material. Should, at the same, a febrile reaction not have shown itself (known by a slight shivering or desire to be covered up), then the epigastrium is to be rubbed unremittently with the liquor lyttae, till the patient is fully sensible of its action, then an emplastrum lyttae is to be applied to that part, and the abdomen and loins enveloped in a flannel roller, well applied in several convolutions. The only hope depends on the blister being well and properly applied. I have tried boiling water and the actual cautery; I found them too violent, and fail. If the thirst continue, it may be relieved by effervescing draughts of bicarbonate of soda and citric or tartaric acid *ad libitum*. At the same time, the respiratory apparatus must be attended to; and if the dyspnoea is urgent, with a sense of suffocation, general and topical bleeding must be had recourse to, according to the urgency of the

symptoms, guided by the judgment of the practitioner.

Leeches to the cardiac region should never be lost sight of, as well as to other parts of the chest. The symptoms requiring bleeding and leeches may make their appearance from the first, or they may arise at any period of the disease. They require to be narrowly watched. They are often known by a tendency to coma, as if the cerebrum were alone affected. Should the dyspnoea continue, and appear to proceed from participation of the recurrent nerves, and the larynx be more especially affected, then the liquor lyttae must be well rubbed in, till its effect is produced, and an emplastrum lyttae well applied with a flannel roller.

I think I have said enough to direct the principles of treatment.

This being the 24th of October, is the last day for this overland mail, and I cannot enter at present further into the subject.

I may add, the moment the blister begins to act, the patient feels relief, and the practitioner has then more time to attend to any extended affection of the respiratory nerves. But, I repeat, that if the affection of gastric plexuses is not translated to the periphery by the above means, all other means will fail. The after treatment consists in regulating the bowels by aperients; also particular attention to the respiratory organs. The frequent application of leeches is often necessary, assisted by nauseating doses (frequently to full vomiting) to keep down the febrile diathesis. The exhibition of ealomet, &c., to be regulated by the judgment of the practitioner, as well as any other medicine which he may think necessary in addition to the above principles of treatment.

In conclusion, having only had a few hours, since the receipt of the intelligence of reports of cholera in Europe to the departure of the overland mail of this day, to draw up this hasty sketch, I beg most respectfully that all due consideration and allowance may be made by the members of the medical profession for these hasty remarks.

Bangalore, Oct. 24, 1846.

### OVARIAN DROPSY.

By E. MURPHY, M.D.,

Professor of Midwifery to the University College.

[To the Editor of the Medical Times.]

SIR,—I very willingly acquit Mr. Brown of any intention to impute to me an error of judgment in the case he has reported as cured, in a preceding number of your journal. The design of my letter was not to defend myself from a charge that had, at best, only a poor woman's misconceptions for its support, but rather to give the result of my own experience, as far as it has gone in reference to Mr. Brown's plan of treatment for ovarian disease: for this purpose I related, briefly, two cases which seemed to present to me a remarkable contrast in their results. The one had not been tapped, moderate pressure was employed to retard as much as possible the growth of the cyst, and strict attention paid to the general health. The other, presenting very similar symptoms, and a younger person, had been tapped; powerful pressure applied, in order by this means to obliterate the cyst; mercury given to salivation; diuretics prescribed. Mr. Brown's treatment was, in fact, carried into effect by a skilful practitioner of Nottingham. The former is now, at the end of three years, quite as well as when I first saw her. The latter died in March, 1846, about eight months after she was tapped.

The obvious inference which such results establish has very naturally drawn from Mr. Brown a reply. He says—"I cannot agree with him (Dr. Murphy) in his deductions, because it will be observed that the first lady, who *partly tried the plan*, has been now more than three years comparatively well; and the second lady, described by Dr. Murphy as *younger* than his former one, I know was between forty and fifty years old, and of a poor constitution." I think that this last patient was under forty-three; and as to her con-

(a) Vide No. VI., "Edinburgh Journal of Medical and Physical Sciences," edited by Dr. Milligan.



stitution, it is rather singular, that neither Dr. Locock, the eminent provincial surgeon who undertook Mr. Brown's treatment, nor the writer, could discover this objection to the plan proposed, although I can easily conceive that when Mr. Brown saw her, *for the first time*, some months afterwards, he found her of a poor constitution. With regard to the first patient, Mr. Brown's remark is still more singular, if I am correct in the sense I take it, viz., that the lady had been for three years comparatively well, *because* his plan was partly tried. I have only to repeat that I was compelled to give up even this partial trial in consequence of the unfavourable symptoms that presented themselves, and it was only when it was discontinued the lady began to resume her previous health.

To return, however, to the second case. Mr. Brown thinks that I have been inaccurate in attributing her death to his treatment, not knowing that she had been tapped "*per anum*" by the advice of Drs. Rigby and F. Bird. These eminent obstetric physicians can explain why they did so better than I can, and, I am sure, are able to give very satisfactory reasons for the operation; but Mr. Brown must pardon me, if I express my disbelief that either of them would tap in this way unless compelled by some strong necessity arising from the unfavourable state of the patient. She had been already tapped three times through the abdomen; after each tapping strong pressure was applied; and, under such circumstances, it is just possible that the parietes of the abdomen and cyst were so thickened in that direction as to leave no other means of relieving her from the distressing accumulation of its contents. I do not wish, however, to assume any explanation of the *immediate cause* of this lady's death. It is sufficient for the object I had in view, in stating my experience of this plan, to repeat what I think has been proved, that "the treatment was very carefully tried, and failed"; that tapping and strong pressure had been three times repeated unsuccessfully—the last time by Mr. Brown himself; that she finally consulted two obstetric physicians of high professional reputation, and died in less than a year from the time she was first tapped; and that, consequently, the case forms a remarkable contrast to that in which the cyst was untouched.

Having a great dislike to controversy, I should not have trespassed on your attention with these cases, only that, when a new practice for the relief of a very serious disease is proposed and pressed forward, it seems to be very important to afford the profession every opportunity of determining accurately its value. This can only be done by presenting them both sides of the question, that they may compare cases against, with those in favour of the practice, and arrive at a fair conclusion. Having felt the great disadvantage of imperfect information—reading only of successful cases, and hearing nothing to the contrary—I thought it might be useful to state these results, when Time, the great tell-tale of events, revealed the truth.

I am, Sir, your obedient servant,  
EDWARD WM. MURPHY.

12, Henrietta-street, Cavendish-square, Jan. 11.

#### HAHNEMANNISM; OR, HOMŒOPATHICS.

By CHARLES EDWARD HERBERT ORPEN, M.D.,  
Fellow and Member of the Royal Colleges of Surgeons of  
Ireland and of England; Birkenhead.

Your correspondent, Dr. George Hilbers, of Norwich, who took out the degree of M.D. in rational medicine, and has, it seems, renounced it wholly for irrational Hahnemannism, has, in page 173, noticed my previous letter on homœopathic humbugology. It is utterly impossible that he can have read Hahnemann's own books, or those of his principal foreign followers, or he would never have ventured to assert that I was in an "error, which consists in supposing that they say, or believe, that the medicines, in their diluted or attenuated form, are capable, as a general rule, of producing ANY MEDICINAL

SYMPTOMS, when taken by persons in health." "Into this error" (he says) "more than one esteemed medical friend has fallen, who, I know, is honestly examining into the merits of homœopathy." The error, however, into which I fell, was quite a different one, viz., that of thinking that Hahnemann and his followers must have observed some part, at least, of what they stated as to minute doses. Until I tried, I did not and could not believe, that any men would state such utterly baseless figments as observations of their own, or would present a whole body of fallacies as facts, and thus risk human lives; and I therefore determined to test their statements by experiments on myself, and glean out whatever truth was in them for my own and others' good. I could not, however, find any at all, as I have already explained.

Is he so ridiculously ignorant of the writings of the founder and sectaries of his own heterodoxy as not to know that he and they have filled half their books with catalogues of the effects of medicines upon themselves and other persons in health, even down to the filthy Smegma? And was it not Hahnemann's own assertion, that, as he pretends to have found that Peruvian bark would cause ague to a person in health, therefore he was led to form his theory that it ought to cure it in those diseased with intermittent fever? In fact, are not the whole of his dogmatic hypotheses founded upon his and their assertion of the supposed fact, that each medicine will, in health, produce a kind of disease similar to that for which, in sickness, they give it to effect a cure?

What can he mean by the experimental "undiluted state" of the "medicines," "aconite, belladonna, and nux vomica," as the only forms used by Hahnemann? Does he really venture to assert that all Hahnemann's so-called experiments or observations, or, as he calls them, "provings," were made with the very essential and concrete principle of each of these, and of all other medicines, in their most concentrated and energetic form? If so, he either cannot have read Hahnemann's or others' works at all, or he trusts that the readers of his letter have not, and will not, and therefore cannot, detect his fallacy. The essential principle of many medicines was utterly unknown in his days.

Does not Hahnemann himself say, that the effect of the most minute fraction of one single globule of some medicines will often not disappear for six weeks? And if so, will Dr. Hilbers please to tell the public how any of Hahnemann's observations upon himself, in health, while taking these medicines, or any of his own observations on pupils, or those of other disciples on themselves, can be relied on, when it is known especially that almost all his pupils were habitual smokers of a most violent poison, namely, tobacco; and that he himself had been all his long life a most inveterate Dutch steamer, as such self-fumigators are called? If one globule of a strong medicine will imbue the whole man with its effects for six weeks, as he states, how many years, or centuries rather, of purification would it take to disinfect every tissue and secretion of Hahnemann's *corpus*, or carcase, from the forty, sixty, or eighty years of thorough soaking that he gave it with nicotine, which would be necessary first to enable him to observe at all what would be the pure unmixed effect, or *materia medica pura*, of any medicine? According to all the so-called laws of homœopathies, it would take about a thousand thousand millenniums to purify the bodies of such inveterate tobaccoists. He and his German disciples, who were thus as insensible to infinitesimal doses as Mithridates to poisons, know also another Hahnemannist or two in this country who are similarly tobaccoized all through, and spoiled for ever for all experiments; and in this, I believe, they are often his mimics.

Let Dr. Hilbers answer this plain question—Has he, or any homœopathic, or any one else that he knows, tried, as I did on myself, as I described in my last, every one of their eighty-four chief bottles of globules, and watched for their effects, and, to give them each fair play, extended this trial over three years? Did he, or any one of the experimenters alluded to at the end of his first paragraph, abstain, as I did, during all that time, and

as I had done for many, many years before (for it has been my habit almost all my life), from all spirituous, vinous, fermented, narcotic, or stimulating drinks, and from all smoking, snuffing, condiments, spices, &c.; so that my body was better qualified for ascertaining whether there was one word of truth in their statements than Hahnemann's ever was, or than most men's are? I sent, also, that list of eighty-four medicines to one of the best-informed homœopathics in England, and asked him to strike out any inefficient ones, and to add any other potent novel medicines; and he made only four or five erasures, and three or four additions, so that the list must be very comprehensive.

As to Dr. Hilbers' theoretic illustration from "musk," it is an absurdity: for, first of all, I deny, and indeed he does not even assert, that the experiment was ever tried at all, as to its not losing weight by decenniums or centuries of exhalation; secondly, all our scales and weights are utterly incapable of weighing gaseous odoriferous atoms, if they exist at all; and, thirdly, there is no proof whatever that olfaction is in any case produced by a continuous waste of particles issuing from the odorous body, and impinging on the nervous expansion for smelling, or the schneiderian membrane, or that they are lost by such a transit, or by some unknown incorporation with the nerves. There is no more proof, I assert, nor so much, that olfacient bodies, such as musk, ought to lose weight by causing a sensation of smelling unintermittingly for a century, than that a church bell, if rung every Sunday, ought to lose weight by causing, for ages, the church-inviting sensation of sound in a thousand parishioners—for rust and its clapper will wear it out.

It is very possible that a homœopathic, reading Hahnemann's description of the effects of any medicine, and then trying that medicine on himself, may fancy all the medicinal symptoms that he thence thinks ought to supervene; and hence suppose that his observation, on experiment, has confirmed Hahnemann's assertion; whereas all the time Hahnemann's statement may be merely a daring figment, and his own feelings a mere imaginative *sensiblerie*, to use a French phrase for fanciful sensations excited by the mind's ideas. It is very possible, too, that when I swallowed two whole bottles of globules of arsenic, or of belladonna, or of phosphorus, I may, from knowing the symptoms that these medicines ought to produce (all medical men know them), have fancied merely the sensations which I thought I felt from them alone, as I stated, which destroys the whole argument of Dr. Hilbers' sixth and last paragraph; but he will please to remember that, as homœopathics usually give only infinitesimal doses of fractions of globules, I probably, in these doses of two bottles at once, swallowed a centillion times as much as they usually prescribe. In fact, it is capable of proof, by arithmetical calculation, that their doses sometimes cannot be more powerful than if one grain of opium were dissolved in the whole body of waters of the South American Marañon (or Amazon's river), which is so immense that it carries its fresh stream, unmixed, sixty miles into the sea from its mouth; or than if one grain of phosphorus were diffused in solution in the whole Caspian Sea, or one of belladonna even in the vast Atlantic or Pacific itself.

Will Dr. Hilbers answer these questions? Is not true hæmoptysis a spitting of blood from the ruptured artery or vein in the lungs? And does he, or any homœopathic, in trying to cure it (or let it cure itself), give, as he ought by Hahnemann's theory, a medicine that causes rupture of the pulmonary bloodvessels; and, if so, what is the medicine for the arterial and what for the venous rupture? And, further, will he consent to prove to me its effects, by taking each such medicine himself, under the eye of any one rational physician of Norwich, until it causes such venous or arterial sputation on himself? Or let him choose any other healthy person who will consent to try it? Or, if he cannot find one at Norwich, let him send the medicines to me, and I will try each as long as he pleases? Again, is not hydrocephalus acutus primarily an inflammatory state of the arachnoid, or pia mater, causing, secondarily, effusion of serosity



into the ventricles; and, thirdly, subsequent paralysis, convulsions, or death, by pressure? Well, does he or do they give medicines for its three stages, that cause similar diseases, and what are these medicines? or, were his eyes or Hahnemann's ever, during life, inside a healthy person's brain to see similar inflammation, exudation, and pressure, &c., produced by either great or small doses of these medicines? In what patients, sick or well, did they give medicines to produce all these symptoms unto death?

I have always observed that all hypothetists invoke the names, or *manes*, of Galileo, Bacon, Newton, or Harvey; and hope to mislead their readers into thinking that, because these great men were discoverers of facts which yet were, for a time, doubted by persons ignorant previously, of these facts, and, consequently, suspicious of the superstitious theory, therefore they themselves now, mere sciolists, with their miserably tame hypotheses not founded in facts, are victims to public incredulity, and martyrs for truth, persecuted by the followers of old truths. Hence, of course, Dr. Hilbers quotes Harvey. Harvey discovered a physical fact and piece of anatomical mechanism, by proving the existence and use of the cardiac, arterial, and venous valves, which made his theory as self-evident as the locks of a canal, or the floodgates of a dock, as to what is the possible and the impossible current of the blood of those, or of the waters of these.

Observe Dr. Hilbers' illustration. He says it is "a well-known fact" that "marsh miasm" will cause a person in health to become diseased with ague; therefore he argues that medicines will cure a person who is diseased. What connection have the fact and the inference?

Besides, forgetting that he had just said their doctrine was that "diluted or attenuated forms" of "medicines" are not "capable, as a general rule, of producing medicinal symptoms" (in me, because) "in health," he asserts, in the very next paragraph, that "undetectable particles," "infinitely minuter than the highest homœopathic dilutions," or "attenuations," viz., from "musk," "paint," "tobacco," "hay," and "marsh miasm," will produce diseased effects, "even when the body is in a state of apparent health"; and it is on this fact and theory, both of which he had just before denied, in the name of all Hahnemannians, that he founds his assertion, that "infinitely small particles of matter," in homœopathic dilutions, will "affect the body, as powerfully when in a state of disease," so as to produce new diseases, and so cure old ones. How stands it to reason that infinitely minute particles out of the body will produce disease in healthy persons, and that infinitely minute particles inside the body will not?

As to his quotation of a pretty sentence from the great discoverer of the circulation, he forgets that I had for three years before been trying, "honestly" (as he says men ought, but implies I did not), to sift one grain of truth from the bushel of chaff of their fictions, and had been paid the chaff for my pains; and that my letter was intended, not as a search after truth in their explored labyrinth, but as an indignant reproof of a detected maze of deceptions.

But Dr. Hilbers actually says, that, in investigating the Hahnemannian statements, we must not do anything but "repeat his experiments"; we are never to dare to "invent experiments of our own." (The italics are verily his.) I wonder what Liebig, Berzelius, or Faraday would say to the man who ventured to enact a similar absurdity as a law for them as to chemical, magnetic, or diamagnetic experiments. Oh! shades of Hippocrates, Sydenham, and Hunter, of Lavoisier, Cavendish, and Davy, to what a pass is all science come, when we are only allowed, by homœopathies to repeat the experiments of the dark ages, and never again, like Bacon or Boyle, to interrogate Nature, in her own words or in her works, by well-devised experiments!

Homœopathy is already changed; Hahnemannism no more. A few years ago they used almost exclusively globules all made up, as they said, with sugar of milk (asses' milk, probably, as it contains much more saccharine matter than cows' milk, and is more akin to humbugology). And yet I believe

that what the cheating London milkmen call the "black cow," that is, the pump and its watery dilution, has much more effect than all their globules. Now, they chiefly use tinctures and powders; their medicine-chests, too, are grown much larger—with age, of course; I know, too, as a fact, that they sometimes give good large doses of powders, and not infinitesimal atoms in Atlantic dilution; they sometimes, too, do not scruple thus quietly to use common medicines in the common way, *sub rosa*, as it were, their patients not thus knowing it, as they would if globules only were used. This change proves their own disbelief, after trial, of the theory and practice of Hahnemann himself; and if that old man, who had really great natural talents, were to rise from his grave, he would wholly disavow them as illegitimate.

"Whatever is worth doing at all is worth doing well," is the best and truest sentence in all Dr. Hilbers' letter. Let him, therefore, and some rational physician at Norwich, choose a number of persons, healthy and sick, there, on the spot; let him supply the rational physician with all the best eighty-four medicines, globules, tinctures, and powders, undiluted and diluted; let that physician give each, in succession, to a healthy and to a diseased subject, without either Dr. Hilbers or the patients at all knowing what medicine he is giving, or what effects are said to be expected; and if the unbiassed patient record the same sensations, effects, diseases, and cures as Hahnemann asserts, or Dr. Hilbers believes, as to each medicine, I will pledge myself to mix all the medicines together that are in one of Headland's pretty boxes, and swallow them all "undiluted"; and, as Dr. Hilbers says of homœopathy, "the sooner the bubble will be burst" the better.

As Dr. Hilbers expresses his opinion that he cannot "depend on the trustworthiness" of me, as an observer, in my own body, I commit the above-suggested *experimentum crucis* to be executed, under his own eyes, at Norwich, if he will only pledge himself to abide by the result.

I am, your obedient servant,  
CHAS. EDWARD H. ORPEN, M.D., &c.  
34, Hamilton-square West, Woodside,  
Birkenhead, Jan. 1st, 1847.

### PHYSIOLOGICAL EFFECTS OF THE VAPOUR OF ETHER.

By HENRY TAYLOR, Esq., Surgeon, Nottingham,  
Member of the Royal College of Surgeons.

I forward to you a few hasty notes of an experiment which was made last evening on the effects of the inhalation of the vapour of sulphuric ether. The relation of the case possesses greater value from having been tried on one of our own profession, who is, therefore, better able to judge of the effects produced upon the sensitive parts of the system. It is by a repetition of such experiments that a correct judgment can be formed of the full value of this new application of an old therapeutic remedy.

Dr. Gill, a physician of this town, anxious to prove the efficacy of the inhalation of sulphuric ether in depriving the body of sensation, undertook himself to inhale the vapour in the presence of several of his medical friends. This he did last evening, by means of an apparatus of a simple construction, contrived by himself.

Before the experiment was commenced we considered it advisable to make the following observations:—

The temperature of the room, 55°.  
Respiration, 15 in the minute.  
Pulse, 74 in the minute.  
Temperature in grasp of hand, 75° F.  
Temperature in mouth, 95° F.  
Pupils rather dilated.

Dr. Gill expressed himself not quite well, which he attributed to some experiments he had tried upon himself on the previous evening. The apparatus was simply a glass receiver, containing pieces of sponge saturated with ether, with a breathing-tube attached, the receiver being fed by a funnel, holding another piece of sponge moist-

ened with ether, so that the air which was to be respired, while passing down the funnel, would be saturated with the vapour. The expired air was passed through the return valve of a stomach-pump. The ether used was previously washed, and of the specific gravity 750.

Being seated in a chair, he commenced the inhalation one minute after seven P.M.; some little irritation in the fauces was produced, which excited coughing, and after a time prevented a continuance of the process. This was resumed at eleven minutes after seven, when he proceeded by slow and steady respiration to inhale the vapour. According to a previous arrangement he was to stamp on the ground so long as he remained conscious; and he was desirous, if possible, to continue the inhalation of the vapour one minute and a half after the last stamp of the foot on the ground. In one minute after the commencement of the inhalation he struck the ground with his foot, and repeated it at two, two and a half, three, three and a half, and again just before the fourth minute, directly after which he thrust the apparatus suddenly from him, and the most marked effects followed—perfect insensibility, with a disposition to struggle, and a strong effort to throw himself backwards on the ground; the respiration was more hurried, the eyelids were firmly closed; on raising them the pupils were seen to be in the same state as before the inhalation. Dr. Wright, on examining the pulse, found it to be eighty at this moment. Mr. Thomson raised the integuments about the wrist with his finger and thumb, and passed a full-sized needle through, leaving the point transfixed for some time. The eyelids and conjunctiva were brushed with a camel-hair pencil without producing any winking or uneasiness. The temperature in the palm of the hand was 83°. This state of perfect unconsciousness and insensibility continued two minutes, when he became partially sensible to pain, as was shown by pinching the points of his fingers, and at four minutes after the commencement of insensibility he became perfectly conscious of all that was going on around him.

During the inhalation, so soon as the system appeared to be affected by the vapour, the respiration became deeper and more protracted. The body, during expiration, was bent forward nearly to the ground, and was again raised—proportionably raised—at each inspiration. The veins of the forehead became full and congested, and the whole system appeared under a state of excitement. About ten minutes after the effects had passed off, he stated that he had felt rather heavy, but he was perfectly sensible. The pulse was 82 at this time, the body was much warmer, and the system appeared in a state of glow and excitement, such as is produced after drinking a strong stimulant. The quantity of ether used was about an ounce.

In venturing to pass an opinion, whether the state produced by the inhalation is a proper one for operating (judging from the solitary case related above), I cannot say that I should consider it altogether favourable, for the following reasons:—In the first place, the body was thrown into a condition approaching to tonic spasm, instead of a state of prostration. Secondly, the blood appeared to be forced violently to the head and surface of the body. Thirdly, the length of time during which perfect insensibility continued was so short as scarcely to admit the completion of some of the capital operations. Fourthly, the restlessness and partial sensibility, which occurred with returning consciousness, would sadly interfere in the performance of an operation; and the difficulty which would then exist in persuading the patient to renew the inhalation would be considerable, if not insurmountable.

These are objections which strike me as likely to occur to the general employment of so powerful an agent. Still, I am prepared to hope and believe that it may yet be found to be most invaluable in the hands of the operating surgeon and medical practitioner in numerous cases where insensibility to pain is required; still I think



judgment must not be hastily passed upon a matter so weighty, and pregnant with much benefit, without its having a series of trials and experiments performed, solely and entirely for the elicitation of truth.

Bridlesmith-gate, Nottingham, Jan. 14.

TABLE

Of the quantity of VAPOUR of ETHER in 100 cubic inches of air, saturated with it at various temperatures.

By JOHN SNOW, M.D.

Temp. Fahr.	Cubic Inches.		Weight in Grains.	
	Ether.	Air.	Ether.	Air.
40	24.3	75.7	19.1	23.1
42	25.6	74.4	20.1	22.7
44	27.0	73.0	21.2	22.2
46	28.3	71.7	22.3	21.8
48	29.7	70.3	23.4	21.4
50	31.2	68.8	24.6	20.9
52	32.7	67.3	25.8	20.5
54	34.3	65.7	27.0	20.0
56	36.0	64.0	28.3	19.5
58	37.7	62.3	29.7	19.0
60	39.5	60.5	31.1	18.4
62	41.4	58.6	32.6	17.8
64	43.3	56.7	34.1	17.3
66	45.3	54.7	35.7	16.6
68	47.4	52.6	37.3	16.0
70	49.4	50.6	38.9	15.4
72	51.5	48.5	40.6	14.7
74	53.6	46.4	42.2	14.1
76	56.0	44.0	44.1	13.4
78	58.4	41.6	46.0	12.6
80	61.0	39.0	48.1	12.0
82	63.7	36.3	50.2	11.0
84	66.6	33.4	52.5	10.1
86	69.5	30.5	54.8	9.3
88	72.5	27.5	57.1	8.3
90	75.6	24.4	59.6	7.4

At about 45° the weights of vapour of ether and of air are equal, and at a little above 70° the volumes are equal.

The weights are calculated with the barometer at thirty.

## PROGRESS OF MEDICAL SCIENCE.

### ACADEMY OF SCIENCES.

Meeting of Jan. 11; M. BRONGNIART in the Chair.

**CURE OF DEAFNESS.**—Dr. Baudelocque communicated the case, and demanded a commission for the examination of a deaf and dumb child, aged nine years, and in a state of mental imbecility, in whom, by a new surgical treatment, he had succeeded in restoring audition and the elements of speech.

### ACADEMY OF MEDICINE.

Meeting of Jan. 12; M. BEGIN in the Chair.  
**PAINLESS OPERATIONS DURING THE INSPIRATION OF ETHER.**

M. Malgaigne announced to the academy that he had tried in five cases the new method proposed for the purpose of rendering surgical operations free from pain. The first case was that of a young man, aged eighteen, affected with a suppurated phlegmonous inflammation of the inferior part of the leg. The inspiration of ether was continued during the space of two minutes, at the end of which he was thrown into a complete state of insensibility; the operation was performed, and the patient awoke half a minute afterwards, and, not having felt the incision, expressed himself quite resigned to have the abscess opened.—In a second case, the patient, bearing a tumour of the neck, was somewhat older; the inspiration of ether lasted five minutes, when the tumour was removed. The man asserted he had been conscious of the operation, but that he had felt no pain.—A young woman, also

afflicted with a tumour of the neck, was thrown into a lethargic state, but only after eighteen minutes; the first incision was painless, but the remainder of the operation was as painful as if no inspiration of ether had been made.—On Monday morning, the 11th, the leg was removed in a man who had been injured by a railway waggon; the ethereal vapour was inspired during seventeen minutes; when restored to consciousness, he said he had been aware of the operation, but that he had suffered no more than if the limb had been slightly scratched with a penknife.—Ether was used during ten minutes in another case, previous to the operation for strabismus. The patient suffered as much as usual.—In the first case M. Malgaigne used a tube, which the subject held in his mouth; in the other, a tube communicating with a phial, which contained ether, was introduced into one nares, the other being closed. The vapour was inspired through the nose, and exhaled from the mouth.

M. Velpeau, after some remarks on the history and origin of this invention, stated, that six weeks ago he was asked to permit a plan, supposed to prevent pain during operations, to be tried in his wards; and that he refused to do so until the nature of the experiment to be attempted should be made known to him. A few days afterwards, he received from Boston a letter explaining the whole secret. M. Velpeau acknowledged he had not yet ventured upon a trial of the method, because he feared that inspiration of ether might be productive of some indisposition, by which its alleged advantages would be counterbalanced. Besides, the stupefying action of ether was of very short duration, and would therefore yield only slight benefit in operations of any length.

M. Guibourt observed, that the apparatus used for the inspiration of medicated vapours could readily be employed for the inhalation of ether; he did not fear, from the new plan, any unpleasant results; his only apprehension was that the ether might produce no effect whatever upon the patient. For his part, he had often breathed for a long time air loaded with abundant ethereal vapours without being in the least sensible of any lethargic influence.

### INTERMITTENT FEVER.

M. Piorry remarked, that the subject of intermittent fevers was connected with the most interesting and important problems of pathological science, and, in order to put the academy in full possession of his theory, read the following extracts from the fifth volume of his treatise on Pathology:—"A complete febrile paroxysm is an attack of progressive neuropathy, arising from the abdominal or thoracic plexus, and, mainly, from those of the spleen, kidneys, or genital organs. This nervous suffering successively invades various parts of the cerebro-spinal apparatus, and afterwards irradiates towards the circumference. It is reproduced in the skin, and causes chills and shivering in the same manner as neuralgia, uteralgia, &c., are followed by suffering in other parts of the nervous system. Febrile paroxysms, periodical in their return, and limited in their number, may have their first cause in the renal, spermatie, ovarian, &c., plexus; in such cases the neuropathy extends thence to the splenic nerves. These periodic attacks, quotidian, tertian, or quartan, arise in reality from the ramifications of the splenic plexus. Various lesions of the spleen—congestion, inflammation, or hypertrophy—may occasion this neuropathy. Congestion of the spleen, attended with increase of size of the viscus, is the most frequent cause of genuine intermittent fever, and is generally the consequence of marshy emanations, the first effects of which are modifications of the composition of the blood. The change in the blood produces obstruction of the spleen, and the obstruction brings on the periodical neuropathy which characterizes intermittent fever. It is a local lesion, analogous to the sufferings of the heart or bladder, consequent upon the introduction of digitalis or cantharidine into the blood: in its turn the disease of the spleen modifies the blood, and produces the change of complexion, the weakness, and anemia generally observed in cases of ancient ague."

M. Rochoux would confine his remarks to the

demonstration of two assertions:—1. Intermittent fever begins before the spleen is diseased. 2. Ague ceases before the spleen has returned to its natural size. In the first place, he would say that the functions of the spleen had been proved by several physiologists to be very secondary, and therefore M. Rochoux did not think that the spleen should be supposed to play an important part in the production of ague. In the Pontine Marshes, in certain parts of France, in the Antilles, one night's exposure produced ague, and in so short a space of time the spleen could not be supposed to have become diseased. In some persons the passage of a catheter caused intermittent fever, and he should, therefore, conclude that ague existed independently of any splenic alteration. With regard to his second assertion, M. Rochoux said that numerous observations proved that febrile paroxysms were arrested as readily with sulphate of quinine, in cases where the spleen was enormously hypertrophied, as in others, and concluded that its enlargement was the least important of the symptoms of ague.

M. Piorry, in reply, observed, that M. Rochoux merely asserted that the spleen was not increased in size before the first febrile paroxysm; but he had frequently examined it during the first attack, and found it enlarged. Lesions of the spleen, contusions, wounds, had been productive of intermittent symptoms; of this M. Piorry related several cases. It was true that cases of enlarged spleen without fever were frequently met with; but cases of confirmed phthisis were also observed, attended with little or no cough. Cancer of the stomach sometimes did not produce any derangement of digestion. The same thing would also occur in ancient organic disease of the spleen: its alteration might not bring on any regular febrile paroxysms.

M. Bouillaud stated that he had observed nearly 250 cases, either during fever or during the apyretic intervals, and had often found a trifling increase of size after the first attack; but it was always after numerous paroxysms that the viscus acquired any considerable enlargement. M. Bouillaud was disposed to consider intermittent fever as an active neurosis of organic life; now, during some neuralgiae of the face, congestion appears, and perhaps the same thing may be supposed to exist in the spleen during intermittent fever. M. Bouillaud had never seen inflammation of the spleen produce periodic febrile attacks, although he had seen that organ inflamed even to suppuration. In typhoid fever the spleen was usually found enlarged, and yet no intermittent symptoms had been present. The hypertrophy of the viscus could not therefore be considered as the cause of ague. Professor Bouillaud concluded with some observations on the rapid decrease of the spleen, observed by M. Piorry, after the exhibition of sulphate of quinine. M. Bouillaud said he had repeated M. Piorry's remarkable experiments, but had not observed any instantaneous diminution. The dose he had employed was eight grains in a seven-ounce mixture.

M. Piorry said that the difference of opinion between M. Bouillaud and himself chiefly arose from the different mode in which each performed percussion. Plessimetric percussion alone could yield results of a positive nature. The doses of quinine employed by M. Bouillaud accounted for his failure in his experiments on the diminution of the spleen. M. Piorry exhibited eighteen grains of quinine in one ounce of fluid acidulated with sulphuric acid. M. Piorry had never seen splenitis unattended with intermittent symptoms; but, when the spleen was disorganized by chronic disease, it has changes in function as well as in structure, and no periodic fever could be expected to arise.

The meeting adjourned at five o'clock.

### FACULTY OF MEDICINE.

GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.  
CONGESTION—(continued).

One of the first consequences of congestion is the dilatation of blood-vessels; it is the only necessary result of hyperemia: the casual consequences are very numerous. The first of the latter is the passage through the vascular parietes of certain elements of the blood—the serum, for instance, with



a reduced amount of its albumen, when the venous ramifications are the seat of hyperemia; but, when definitive arrest of the circulation becomes established, fibrin also escapes. What becomes of these extravasated principles? When water and salts and albumen have alone been effused they may remain unchanged in their nature, but occurrences of a very different order appear when fibrin has escaped. That element becoming solid will reveal its marvellous property of becoming organized—that is, of becoming vascular, and of participating in the phenomena of life; in other cases the extravasated fibrin is exhausted by its transformation into pus, or into the framework of various accidental products. These latter results of hyperemia are, as we have said, merely contingencies, but they will be produced if the congestion acquire any degree of violence or of duration.

With regard to the solid matter in the region occupied by congestion, it may remain unchanged, but it may also become the seat of several structural alterations, referrible to two heads:—A. They may be the mechanical produce of the accumulation of blood, of the vascular distention, of the pressure of the distended vessels on the solid particles; or, B., result from the new relations established by hyperemia between the blood and the solid matter: thus the blood is more abundant, and slower in its progress; hence the secretions, the nutrition, and the vitality of the part, must of necessity be more or less modified. We have hitherto supposed that circulation of the blood continued, although much interfered with by congestion; but hyperemia may be sufficiently violent to arrest it altogether, to prevent the arrival of arterial blood into the solid particles, and thus to occasion mortification. Obliteration of the main artery of a limb will cause gangrene; also an obstacle to the return of blood through the veins may, although it very seldom occurs, cause engorgement of the capillaries, arrest of circulation, and gangrene. When the action of the heart is less energetic—when the circulation is languishing—loss of vitality will readily follow congestion in any part, as we observe it in typhus, and other adynamic diseases. A rapid and sudden accumulation of blood, sometimes arising spontaneously or consequent upon the influence of intense heat or cold, also brings on gangrene. In all these various instances, the mortification is occasioned by the same mechanism, viz., the interruption of the stream of arterial blood into any region. But, in other cases, we are obliged to consider that local death is not brought on in this manner: in one class of diseases, in which a virus appears to act—as in the plague, pustula maligna, some forms of typhus, in the symptoms resulting from the use of ergot of rye, &c.—gangrene is frequent; congestion lasts but an extremely short time, and mortification seems the result of a special destruction of nervous energy. When life has ceased in any part, its molecules return to the empire of the physical and chemical laws which regulate inorganic matter, and decomposition begins. But this is not all: we have considered congestion only locally. When the intensity of hyperemia is considerable, or its duration long, the arrest of circulation in a circumscribed spot is re-echoed in all the other portions of the system. Thus, in the blood we find a sudden and spontaneous increase of its fibrin, and in the solid parts functional disturbances by which their sympathy with the local disorder is testified.

Inflammation, therefore, is nothing but hyperemia producing some of its casual results, and you must now perceive how perfectly impossible it is to draw a rigorous and distinct line of demarcation between congestion and inflammation. The intensity, rapidity, and duration of hyperemia, its cause, will tend to change it into phlogosis. The nature of the affected tissue will also have some influence; and the predisposition of each individual should be taken into account.

Hemorrhage is the second sort of derangement of the capillary circulation which we have to examine; it is constituted by extravasation of the circulating fluid, and may occur on all the free surfaces of the body. On the skin, for instance, from vascular parts, such as the pulp of the fingers, it is extremely uncommon to meet with hemorrhage, from a more

extensive surface of the dermis, when no external injury has taken place from the effects of friction with the tartar emetic ointment; also, on the pustules, in some malignant forms of variola, blood is found to be exuded from the skin. Mucous membranes are, more frequently than the cutaneous envelope, the seat of hemorrhage; from all, it has been observed, even from the conjunctiva; from the free surface of serous sacs, hemorrhage has also been noticed. Let us, however, say that after death a sanguineous fluid is occasionally found in serous cavities, which is not the result of hemorrhage, but of putrefaction: this fluid does not consist of real blood, but of hematine which has filtered through the tissues under the influence of decomposition. In general, we may assert that genuine hemorrhage is very uncommon in serous membranes, where accumulations of blood are habitually due to vascular rupture. Synovial textures, the areolous cavities of the cellular structures of the body, are often invaded by extravasated blood, whether the cellular tissue be examined under the skin, the mucous or serous membranes, or in the inter-muscular spaces, or even between the bones and their periosteum; we find, also, hemorrhage in the very substance of the various membranes enumerated—in the shape of ecchymotic or petechial patches—usually referrible to a general cause. In the parenchyma of our viscera, in the brain, and more especially in some particular regions of the organ, we meet with hemorrhage. After the cerebrum the lung is most frequently affected in this manner; the liver sometimes, and very seldom the kidney. In all these cases the blood is extravasated with all its component principles; but may not some of its elements, as Vogel asserts, escape during life from the vessels? We are inclined to suspect that such may be the case; it is not, however, a demonstrated fact.

What becomes of the extravasated blood? When accumulated in a cavity, in communication with the air, it will become decomposed; in other cavities, such as the stomach, it will be submitted to the action of certain agents, which may modify it more or less. Thus, by its contact with the acids of the stomach, blood is rapidly altered—its globules disappear, and it is changed into a brown fluid holding in suspension black clots. The same will happen when blood is placed in a vase in contact with muriatic acid. If not in communication with air, or with any of those decomposing agents, the blood may long remain unchanged and even in a fluid state; it may also be absorbed completely or incompletely; in the cellular tissue, absorption always takes place. In cerebral substance, matters assume the following course:—Around the sanguineous effusion a membrane becomes organized, and exhales a serous fluid by which the clot is more or less diluted or liquefied; being thereby permitted to return into the circulation, a cavity then remains filled with serous exudation, which gradually diminishes in quantity and finally disappears, leaving the walls of the cavity in close apposition, and afterwards adhesion takes place between them. The extravasated blood of hemorrhage may also undergo many singular changes, and become the origin of some accidental productions. We have seen, for instance, that its fibrin may become organized and participate in the phenomena of life. As to the solid textures which have been the seat of hemorrhage, changes may be observed which have preceded, or which have followed, the extravasation of blood. Thus, the parenchyma may be lacerated or compressed, its colour may be remarkably pale from the compression exercised by the blood; the presence of the clot occasions phenomena of local congestion and reaction, the anatomical traces of which can also be readily detected. With regard to the alterations which have caused the occurrence of hemorrhage, they are referrible to inflammation and to hyperemia—to the latter more particularly, phlogosis being in most cases incompatible with hemorrhage. Amongst the structural changes which frequently bring on extravasation of blood, certain forms of softening and ulceration should more particularly be noticed. Two accidental products, cancer and tubercular deposit, are also often the cause of hemorrhage. All these va-

rious alterations bring on, invariably, one result, viz., vascular laceration, which we can readily see in large vessels, and which we are obliged to suppose in the capillaries, but the supposition is supported by so many and so strong proofs, that it amounts almost to a positive certainty. Vascular rupture is, therefore, the proximate cause of hemorrhage; but its remote causes must be sought either in the altered state of the parietes of the vessels, in some impediment to the free circulation of the blood, or to a change in the composition of that fluid.

The altered state of the vascular walls often originates in the textures which surround them; this happens in tubercular disease, and permits us to account easily for the differences observed in hemoptysis, according to the period of the thoracic affection.

An impediment to capillary circulation is very commonly the cause of hemorrhage; we see it thus occasioned by too violent action of the heart, by which, sometimes, congestion is brought on: but want of energy in the action of the heart, productive, as we have seen, of congestion, never causes hemorrhage; an obstacle to the return of the venous blood will produce it; we see it in animals resulting in the intestine from ligature of the vena portarum, and in man nasal, pulmonary, or cerebral hemorrhage are not unfrequently the consequence of violent efforts, during which the venous blood accumulates more or less in the capillaries. We find, also, that organic disease of the heart is the exclusive cause of pulmonary apoplexy. The disturbance of capillary circulation may consist in a mechanical obstruction of the capillaries themselves; when, for instance, pressure is removed from the surface of the skin, the blood rushes to the surface, as it does under the bell of a cupping-glass when the air it contained has been exhausted. M. de Humbolt made the remark on the summit of the Cordilleras Mountains; and it appears that hemorrhage will even be induced by the circumstance of removal of atmospheric pressure, particularly if any violent exercise be indulged in; oxen bled at the nose when forced to walk fast in elevated mountains. The disturbance of capillary circulation may depend upon disorder of the nervous influence by which it is regulated: thus we find mental emotions, anger, hate, occasion hemorrhage in persons not otherwise subject to loss of blood, and cause the return of suspended hemorrhages in cancerous or tubercular patients. During menstruation, pains are often present, which we refer to the preceding and accompanying congestion in the dense tissue of the womb; this hyperemia we observe also in pregnancy, and we have attributed it, with Muller, to a certain vital attraction between the solids and fluids of the body in given conditions. In some cases, in proportion with the tendency to hemorrhage, a gradual transformation of healthy parts takes place into erectile tissue. Hemorrhages are called *active* when they are preceded by a particular form of congestion, often appreciable by general symptoms which prepare the local disorder. In some women menstruation, in many persons hemorrhoidal discharges, follow febrile excitement and general symptoms of a special kind. We find also hemorrhage coinciding with quite another order of facts, viz., a change in the natural composition of the blood; we find here a rule so very general in its applications that it may be looked upon as a law: a diminution of the fibrin of the blood, relatively to its globules, facilitates the production of hemorrhage, hence a relative or an absolute decrease of fibrin will both tend to create hemorrhage; but the morbid conditions will be different in each: thus, when the fibrin remains natural, the globules increase in quantity, plethora is present, and hemorrhage appears chiefly from the mucous membranes, and particularly from the nose. When, on the contrary, the fibrin diminishes—the globules remaining natural, as it happens in scurvy, purpura, typhus, &c.—hemorrhage shows itself, very generally diffused all over the body and in the most different organs. Why this should be the result of diminution of fibrin does not very clearly appear. It is, however, a well demonstrated fact that laceration of the capillaries coincides with a fall of that ele-



ment of the blood. It is, perhaps, because a diminution of fibrin is itself a result, not a cause; and that, in the various maladies enumerated, the vital force of the subject is decreased, and at the same time removes from the blood its fibrin, and from the vascular walls their solidity. Impoverishment of the blood is therefore a cause of hemorrhage, but impoverishment of its fibrin only. We do not find chlorotic subjects much exposed to loss of blood; we do not observe it in cases where the blood is deprived of its albumen, but solely where the circulating fluid does not contain its healthy average of fibrin.

Anemia is the third alteration of the solids occasioned by a derangement in their circulation: this change in their condition presents but little interest when compared with congestion or hemorrhage. Let us merely state, however, in a general manner, that when in an anemic state the vessels are empty and the colour of the tissues remarkably pale.

Such are the changes brought on in the solids of the body by a modification of their circulation. In these the substance of the solids is not altered in a primary manner; but we now come to alterations of nutrition of the solids, in which the substance itself is modified.

The solid particles may be altered in four distinct modes:—1. According to their respective arrangement—hence, *a*, alterations of conformation; *b*, alterations of position. 2. According to their number—*a*, hypertrophy; *b*, atrophy. 3. To their consistency—*a*, ramolissement; *b*, induration. 4. To their nature; hence the various accidental productions, which may either—*a*, be a transformation of healthy structures, or *b*, a deposition between compressed natural tissues.

D. M'CARTHY, D.M.P.

#### PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, Dec. 29; R. CARMICHAEL, Esq.,  
in the Chair.

Dr. O'Ferrall said he had on former occasions drawn the attention of the Pathological Society to some of the varieties of intestinal obstruction of a mechanical nature, and the present case he considered not less interesting. The subject was a child of twelve months old, who was admitted to the children's ward of St. Vincent's Hospital, and the following account given of its illness:—About a fortnight before admission the child was attacked with diarrhœa, which after two days ceased, and an interval of apparent health occurred; but the day before admission the diarrhœa returned, and some blood was passed with the stools. He was suddenly seized with pain, evidently of a very acute character; he twisted about in his mother's arms, and manifested all the usual symptoms of a child suffering from severe pain in the abdomen. A loose evacuation followed, and ultimately blood, and next day he was brought to the hospital. He was then very much collapsed from the considerable loss of blood; there was great sinking evidenced by coldness of the extremities and of the nose; the eyes were sunken and surrounded by the peculiar dark circle so familiar to the practitioner. He now appeared to suffer occasionally from very severe pain, though not constant; but when present it was evidently very intense from the writhing of the limbs. No stool of a natural character occurred after this time, and very little water was passed during the illness.

A detail of the daily report from this time until the occurrence of death, in six days after admission, is unnecessary, the leading symptoms having been occasional exacerbations of pain as described above, with persistent constipation, excepting only a discharge of bloody mucus now and then, accompanied for a few days by constant vomiting, which, however, then ceased, and the stomach retained food afterwards. Cold chicken-broth, arrowroot, and such matters as were likely to be retained by the stomach, were given, and the little patient showed some slight tendency to rally; the extremities acquired some warmth, but the expression of countenance did not improve, and no intestinal evacuation of a satisfactory kind occurred.

Dr. O'Ferrall, on first examining the patient, gave it as his opinion that the case was most prob-

ably one of intussusception; that it was one of mechanical obstruction he had no doubt. The child, originally stout and plump, became emaciated from day to day. Such were the symptoms during life.

At the dissection, an intussusception by descent was found, consisting of the ilium, ilio-cæcal valve, and cæcum itself, drawn to a very considerable distance along the colon, nearly in fact to where the descending colon commences. The including portion of intestine was observed to be very flaccid for ten or twelve inches in extent, consisting chiefly of the ascending and transverse colon; while a little further on, corresponding to the descending colon, it was much contracted. The included intestine was extremely congested and swollen, and two orifices could be observed, the one crescentic, the other circular; the former leading to the vermiform appendix, the latter communicating with the ilium. Thus the included portion of intestine having presented two openings, that of the ilium and of the vermiform appendix, an inverted view of the cæcum itself was consequently presented.

With respect to the question raised by Cruveilhier, as to whether in a case of this kind the ilium passes through the ilio-cæcal valve, Dr. O'Ferrall believes that, if such occurs at all, it must be very rarely, and that cases of this kind must be exceptional; that to permit of such an occurrence, in fact, the vitality of the muscular fibres of the valve must be first impaired. Dr. O'Ferrall, in his essay "On Ilio-Cæcal Abscess," had adduced evidence to sustain the opinion that this valve is pursed up and accurately closed during life. Therefore, before the ilium could pass through the valve and present itself in the colon, the valve, he would say, must have lost its power. In the present case the ilium evidently did not pass the valvular opening, because, as before stated, the invaginated intestine presented a double opening—the one including, probably, the ilio-cæcal valve, the other being the orifice of the vermiform appendix. If the ilium passed freely through, the vermiform appendix would not retain the anatomical relations that it does to the circular opening in the present instance.

In support of his opinion that loss of power is essential to the permission of the passage of the ilium through the ilio-cæcal valve, Dr. O'Ferrall states that if in the dead subject we endeavour to produce an intussusception in this locality, the ilium will be found to pass without any interruption through the valve and along the course of the colon as far as the experimenter may wish, without carrying the cæcum at all from its proper situation. But it shows how powerful must be the resistance offered by the valve during life, when a part so firmly bound down as the cæcum may be dragged into the large intestine rather than the ilium should be permitted to pass the valvular opening.

Into an analysis of the symptoms, as compared with the anatomical characters of the morbid parts, he would not at present enter, it being his intention upon a future occasion to bring forward a more digested report upon this subject, which, after all that has been written upon it, must yet be admitted to be very imperfectly understood, both as regards its pathology and diagnosis, and for the treatment of which a rule of practice can hardly be said to exist.

#### REMARKABLE CASE OF INJURY OF THE HEAD.

By Dr. M'Donnell.

In a child who died of injury of the head, at the Richmond Hospital, some days ago, there were found on dissection, inflammation, exudation of lymph, ulceration, and perforation of the dura mater, corresponding to the seat of the injury, the frontal bone over the right superciliary ridge; a thin layer of purulent matter lay along the upper and under surface of the tentorium, and covered also the under surface of the three lobes of the corresponding hemisphere of the brain. The substance of the latter was somewhat softened, and the pia mater was more vascular than natural. At the time of the injury, which was inflicted by a fall, in which the forehead struck violently on the kerbstone, the bone at the point injured was bared, and soon evidently lost its vitality.

Such were the morbid appearances; and the fol-

lowing is a short sketch of the history of the case, which is interesting from the absence of symptoms during life to indicate the mischief that was going on. That there was mischief progressing, Dr. M'Donnell had all along feared, but, with the exception of three points of time, there was no symptom to excite alarm for the immediate safety of the child.

About a month before, the child fell, and the forehead came against the edge of the kerbstone, by which a large flap of the right side of the scalp was torn and thrown down on the face. The child was not brought to the hospital for two days after, and when admitted the wound had a very neglected appearance, the dirt from the fall, mixed with hair, still adhering to it. Till the fifth day, however, the child appeared to go on perfectly well; no symptom to excite uneasiness occurred; but now fever set in, and by-and-by he became drowsy and heavy, unwilling to answer questions, and the appetite was lost. A grain of calomel was given every second hour, and in a short time these symptoms disappeared, the little patient appearing to recover.

On the sixteenth day the same symptoms returned, and were removed by similar treatment, and once more the child appeared to be going on favourably. Soon after the mother, who attended on the child, observed a slight rigor, which, not being followed by any other disagreeable symptom, attracted little attention, the case once more assuming a favourable aspect. The wound, however, never put on a satisfactory appearance; it was not dry or glassy, and the discharge was of a tolerably healthy character, but it never assumed an appearance of frankly commencing to heal: the flap was flabby, and the edges of the wound wanted the characteristic marks of the healing process. These were the only points that kept up a suspicion that all was not right. Things appeared going on favourably till the twenty-fourth day, when the following note was taken by Mr. M'Carthy, his resident pupil in the Richmond Hospital:—

"Again things looked well, and so continued till the twenty-eighth day, when the child was seized with convulsions; at five o'clock A.M. the whole of the left side of the body was convulsed, the eyes were motionless, the look vacant, and the pupils contracted; pulse quick and small; urine and feces passing involuntarily. After eight o'clock these symptoms gradually disappeared, and the child became sensible, but still had an appearance of great prostration; the pupils became dilated, and in about twenty-four hours after, he sunk and died."

#### TO CORRESPONDENTS.

*THE MEDICAL TIMES* is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

*Σύμμα.* The work by Dr. Williams, of Colchester, to which our correspondent alludes, will be reviewed in an early number of the Medical Times. Mr. Markwick's paper has been received.

We have received a form of inhaler for sulphuric ether from Mr. Owen, which is of very ingenious construction; allowing, as it does, freedom of respiration, and obviating the objection which renders many of these instruments dangerous, if



not useless, namely, the absence of fresh air uncontaminated with the products of respiration. Its greatest recommendation will be its cheapness.

We have also to acknowledge a model of another apparatus, for the same purpose, from Dr. Murray, of St. Helier's, Jersey, which may be made at a small cost; but as a bladder of air is attached to it, which must be repeatedly inspired and expired, we do not think it fulfils the whole of the conditions we have indicated in our leading article of last week.

We cannot but feel deeply grateful to our correspondents for their kindness in forwarding to us models or apparatus for the inhalation of ether; but we cannot pledge ourselves to publish engravings of them; and, in many cases, mere descriptions would be insufficient to make their construction intelligible to our readers.

G. R. B., Manchester.—We fear that, in carrying out Mr. B.'s proposition, we should neither be serving him nor ourselves. We regret that our duty compels us to decline his offer.

A Victim.—The greater portion of the parties who have written on the subject to which allusion is made are arrant quacks, whether in or out of the profession. We know nothing of the party either by name or reputation.

Mr. Syme's "Case of Amputation at the Shoulder Joint," and Mr. Smith's third paper "On Erysipelas," have been received. Other correspondents must excuse the delay of their communications, which has been rendered unavoidable by the large mass of matter we have now on hand.

C. L.—There is no omission of any part of Mr. Guthrie's lecture; but the numbers to which he alludes were accidentally misplaced.

Ireland.—Our correspondent has no legal claim on any party for remuneration for his trouble, no inquest being held. Our correspondent's case is only one of many illustrating the arduous duties enforced on medical men, at the same time that there is no provision for their being paid for.

Mr. Finlay, in asking us for the best means of securing himself a physicianship, asks for an advice which can be of little value. Our "Students' Number" gave the terms of all the British and Irish Institutions giving physicians' diplomas, and our correspondent will act wisely in choosing one among them for himself. Nobody can know his connections so well as himself.

W. S.—The Secretary of the College of Surgeons will send our correspondent an admission-ticket on application by letter.

Mr. H.'s operation is not of a character to be serviceable in its publication to either him or our readers.

which would somewhat damp our rejoicings over this inestimable benefit, did we not know that many of them arose either from the use of imperfect agents, or from positive clumsiness in the employment of perfect instruments; or, again, from an insufficient knowledge of the symptoms induced by the inhalation of the ethereal vapour. To one or other of these causes we may legitimately attribute most, if not all, of the failures we have had the disagreeable duty to record. The right appreciation of the signs of complete insensibility is of the utmost importance. Unless these signs are carefully observed and described, it will be impossible to ascertain the right moment for the commencement of an operation; and thus a poor patient may be made to suffer extreme torture, who, by a few more respirations of the intoxicating vapour, would have escaped all suffering.

In another of our columns we publish a note from a gentleman who has had more experience in the administration of ether than any other man in the kingdom, describing succinctly the symptoms and appearances by which we may judge of the complete insensibility of the patient; and we can ourselves testify, from a limited experience, to the correctness of his statements. It will be seen from the note to which we refer, that the eye is the true index of the state of the patient; that the different movements of this organ, the state of the pupil, and its fixed and upturned condition when perfect insensibility has been induced, point out the different stages of the process, and the moment for successful application of the knife.

The interest attached to a process which promises the alleviation of what is most repugnant to human nature—pain—cannot be confined to our profession; on the contrary, it is and must necessarily be felt and estimated by all classes of the community; and hence we see that reports of operations, hitherto confined to the medical journals, are now extensively reported by the daily press as forming one of the wonders of this busy age. The medical press teems with the details of such operations, and matter accumulates with such rapidity as to render a selection from the mass of correspondence we receive the more necessary.

Our selection has been and will be made on the principle of presenting to our readers the most remarkable cases that may fall under our notice, either in the metropolitan hospitals, the letters of correspondents, or the English and foreign journals. The great object we have constantly in view, on this as on all other occasions, is the dissemination of scientific truth; and we can congratulate ourselves on being among the first, if not the very first, to lay this subject before our medical brethren on this side of the Atlantic.

Other matters connected with the discovery imperatively demand notice. The keen commercial spirit for which the United States' men are notorious, has impelled the discoverer of this important property of ether to demand and obtain a patent for its employment. We can scarcely imagine such an extraordinary demand as that of a patent for the alleviation of pain. We have hitherto asso-

ciated the doings of quacks—their two-and-ninepenny bottles surmounted by official stamps—with the word "patent"; and we should never have dreamt of the perpetration of so heinous a breach of professional etiquette by a modern regularly qualified practitioner of the noble art of medicine. It, nevertheless, appears that this spirit of commerce has penetrated to our own country; that a patent has been duly sealed for England; and that the patentee has even advertised the terms on which he will dole out freedom from pain to the unfortunate sufferer. We fully believe that the English patent is invalid, and for this, among many more potent reasons:—It can be proved that the vapour of ether was actually employed within six hours after the transmission of the discovery to this country, in the presence of several medical gentlemen, and before the application for a patent could by any possibility be made. If such be the case, the patent is manifestly invalid, and no injunction can be obtained, or action sustained, by the patentee against any parties for breach of patent right. We shall look with considerable interest for the first legal step taken by the patentee in this matter.

The "patent" is undergoing a very warm discussion in the American journals. We insert, with some reluctance it is true, letters from Dr. Morton and Dr. Bigelow, in answer to Dr. Flagg, in defence of the patent; but we cannot restrain an expression of surprise that Dr. Bigelow should put himself forward as its champion. Our readers will judge of the validity of the arguments employed by these gentlemen.

#### WAKLEY v. THE "MEDICAL TIMES."

OUR readers know that about November the tenth, of last year, the West Middlesex Coroner applied for leave, to the Court of Queen's Bench, to file a criminal information against the proprietor and publisher of this journal. So anxious was the mover then, apparently, to have the case heard, that we met the most vigorous resistance in an application, that we might have more than five or six days in answering, by affidavit, the *ex parte* statements submitted to the court. The fourteenth of this month was fixed for the argument before the court, as to whether the *leave* prayed should be finally granted. We had hoped to have submitted to our readers, in the present number, a record of the argument; but, after daily postponements, it is arranged, as we go to press, that the affair shall not come off till Monday next. Till our next number, therefore, we are obliged to postpone the gratification of any curiosity our readers may feel in a subject to them so interesting, and on many accounts so important.

#### THE POSITION AND PROSPECTS OF THE GENERAL PRACTITIONER.

[The following memorial has reached us at so late an hour that we cannot do more this week than direct attention to its important contents.]

To the Right Hon. Sir George Grey, Bart., her

## THE MEDICAL TIMES.

SATURDAY, JANUARY 23, 1847.

### PAINLESS OPERATIONS.

It is now three weeks since we published our first account of the important discovery, made by one of our transatlantic brethren, of a potent means of alleviating, if not absolutely annihilating, pain during the most severe operations to which suffering humanity is compelled, by dire necessity, to submit. This method has fully realized the anticipations we ventured to indulge: patients have undergone operations, confessedly the most painful, without a sigh or groan; nay, they have been utterly unconscious that the knife had approached their limbs; and great has been their astonishment and gratification, on awaking from a pleasant dream, to find that the operation was completed under a state of temporary insensibility. But failures have occurred,



*Majesty's Principal Secretary of State for the Home Department, &c. &c.:*

The Memorial of the President, Vice-Presidents, and Council of the National Institute of Medicine, Surgery, and Midwifery,

Showeth,—That your memorialists are legally qualified members of the medical profession, and are general practitioners of medicine, surgery, and midwifery. That the National Institute is a voluntary association of general practitioners in medicine, surgery, and midwifery; that your memorialists have been duly elected the representative Council of the National Institute; and that they represent the opinions of above four thousand of the general practitioners of England and Wales.

That medicine, surgery, and midwifery are departments of the same profession; which profession, in a scientific and educational point of view, is essentially one and indivisible; although, for the convenience of the public, it has for a long time past consisted of three classes, viz.:—Physicians, practising physic only; surgeons, professing to practise surgery only; and the class of practitioners of which your memorialists constitute a large proportion, practising not only physic and surgery, but midwifery also,—the last-mentioned branch not being comprised in the range of practice generally undertaken by the members of either of the two former classes; and that this tripartite division of the practice of medicine must continue to exist.

That of every hundred practitioners in this country, more than ninety belong to the class which your memorialists represent; and that the greater number of the individuals constituting this numerous class are legally and fully qualified as general practitioners, by possessing a license to practise medicine, and a diploma, granted after an examination by the College of Surgeons, and qualifying them as surgeons; although there are many exceptions to this rule, arising out of the anomalous state of the existing laws relating to physic and surgery.

That the general practitioners have ever been, and still continue, the ordinary professional attendants of many members of the aristocracy, and of by far the greater proportion of the middle classes of society, and that they may be considered exclusively the medical advisers of the labouring population of this country; physicians and pure surgeons acting as consulting practitioners, and their assistance being called for in cases of great emergency or difficulty arising in their respective departments; and that the physician or the pure surgeon, or both, educated specially, and confining their practice to their respective departments; can never supersede the necessity which exists for a competent body of medical practitioners performing all the functions of the present class of general practitioners, and educated to the highest practicable standard of qualification in the science and art of medicine and surgery.

That, in further illustration of the views of your memorialists, your memorialists regard the division of medical practice into distinct departments, as those of physic and surgery, presided over by special institutions, and represented by different individuals, as an arrangement chiefly adapted for densely-populated and wealthy communities, and generally available by the rich only; and that, even in the metropolis and in the larger towns, the general practitioners must always constitute a majority of the profession, while in country districts the division of labour here indicated is totally impracticable; and your memorialists have a thorough conviction that the well-being and comfort of every class in this great community are more or less dependent upon the competency and skill of this class of practitioners; and that every defect in the medical institutions of the country, or any line of policy calculated to retard the progressive improvement of the general practitioners, or to depress the standard of their qualification, or to diminish their scientific and practical attainments, or in any way to lower their status in society, has not only the effect of debasing the character of the profession in this country, and of retarding the progress of medical science, but is fraught with incalculable, direct, and consecutive evils to society at large.

That, notwithstanding these considerations, the general practitioners of medicine, surgery, and midwifery are without a head or home amongst the institutions of this country, and their position is at present most anomalous. They are acknowledged as practitioners of medicine alone, under the Apothecaries' Act, and they have been recognised as practitioners of surgery alone by the College of Surgeons: neither the Society of Apothecaries nor the College of Surgeons recognises them as practitioners of medicine and surgery—as one profession. The College of Physicians, by its constitution and by-laws, can have no sympathy with them, but a direct interest in maintaining the class, in point of education, general and professional, and qualification, to practise medicine at as great a distance from the standard of that college as possible. Since the recent grant of a charter to the College of Surgeons, that college has no sympathy with them, but has a direct interest in maintaining them, in point of general and professional education and qualification, to practise surgery at as great a distance as possible from the standard of qualification adopted for the fellowship of that college; and the College of Surgeons has, moreover, rendered it totally impracticable for any great proportion of them as general practitioners—although possessing its own diploma as surgeons—ever to become fellows of the college. The examinations instituted by the Apothecaries' Society, and their certificate, relating only to the practice of medicine, obviously are inadequate to their present requirements; and yet, by a singular anomaly, this society is the only body capable of giving a legal title to practise.

Thus, although, as your memorialists have shown, the general practitioners constitute an indispensable professional body, which has been created by the customs and necessities of the community at large, and although they have progressively increased in numbers, and may now be estimated at many thousands, and have rapidly advanced in scientific and professional acquirements, and are possessed of great individual influence, they are unknown in a collective capacity; and legislative enactments have been attempted under the auspices of special institutions, representing particular sections of the profession, having interests peculiar to themselves, and diametrically opposed to those of the general practitioners, without even an allusion to their existence. And your memorialists most emphatically declare, that this anomalous state of the profession operates as a direct infliction of the greatest evils upon society, especially by the systematic efforts which it engenders to depress the attainments, the character, and the status of the general practitioners, and by arresting the progress and preventing the diffusion of knowledge in the great body of the profession.

That, for these and other considerations, it has for a long time past been acknowledged by all parties, that the laws affecting the medical profession are most defective; and, your memorialists having been led to hope that the present Government may entertain the question of Medical Reform during the ensuing session of Parliament, your memorialists have felt it their duty respectfully to call the attention of the Government to some of the more prominent circumstances relating to the class which they represent; and they have felt called upon to do so, at the present moment more especially, as various attempts have been made from time to time to induce the Legislature to revise the said laws; which attempts have failed, owing—according to the belief of your memorialists—to the interests of the general practitioners, as before recited, not having been duly recognised, and the public welfare, as connected with the efficiency and respectability of the great mass of the profession, having been accordingly entirely overlooked.

That, in the opinion of your memorialists, the principal objects of legislation in medical affairs are, to promote the public health, by securing the education of a sufficient number of persons for the practice of the profession to meet the medical and surgical exigencies of the community, to ensure the advancement of medical and surgical knowledge and its general diffusion among all classes of the profession, and to protect the rights and privileges of the public, and of qualified practitioners,

by rendering it penal for unqualified persons to practise.

That different plans of medical reform having been suggested, but every attempt to effect such reform having hitherto proved abortive, and your memorialists having stated truly what they believe to have been the chief cause of failure in these attempts, your memorialists do not desire, upon the present occasion, further to press their own opinions upon the Government as to the principles, or to enter into the details, of a measure of medical reform; but they are anxious to assure the Government that they would most gratefully accept of a settlement of this long-agitated question, from whatever source it may come, provided the interests of the general practitioners were duly regarded in any measure that may be proposed, that efficient medical and surgical advice and attendance were secured for all classes of the community alike, and that proper encouragement were given to the advancement and diffusion of medical and surgical knowledge. At the same time, your memorialists, aware, from their former experience, of the obstacles that are likely to be opposed to legislation on the subject of medical reform, feel it their duty further to state that, although they would be willing to accept such a modification of either of the existing institutions as should make it the head and home of the general practitioners, giving the general practitioners therein the means of securing a complete and efficient medical and scientific education for their own class, yet they have a strong conviction that the objects of medical reform can only be certainly attained by the establishment of a new college, distinct and different from either of the existing special institutions, which shall embrace all persons possessed of any recognised qualification or license whatever, and in actual practice as general practitioners at the time of its foundation, and shall provide for the education and qualification of all its future members; and further, your memorialists cannot refrain from the remark, that the founding of a new college, in accordance with the spirit of the present age, is worthy the consideration of a paternal Government, and of a social-reform Ministry; and that such a step would develop the energies of the medical profession in a manner and to an extent hitherto unprecedented in this country—would maintain the respectability of the great mass of the profession—would promote the science and art of medicine and surgery; and, inasmuch as the duties of the general practitioners have an intimate connection with every legislative proceeding bearing upon public hygiene and sanitary improvement, would be one of the most direct and efficient means of ameliorating and preventing those social evils which are acknowledged to prevail to a lamentable extent in this highly civilized community.

That your memorialists therefore pray that no bill affecting the medical profession may be brought into Parliament which does not recognise the general practitioners as a class, and provide for them an efficient control over the education of the members of that class, so that they may not only maintain the high standard of qualification which is now adopted, but that, by the cultivation of collateral sciences, they may promote the progressive improvement of the class, and thereby secure the true respectability of the great body of practitioners in this country, to whose skill and judgment the limbs and lives of the mass of the population are intrusted.

Your memorialists, in conclusion, have only respectfully to call the serious attention of the Right Honourable the Secretary of State to the facts, opinions, and sentiments contained in this memorial, in full confidence that matters of so much importance to the profession of medicine in this country, and to the public interests, will meet with due consideration, and respectfully to request that an opportunity may be afforded them of giving, as they are prepared to give, the fullest explanation that may be required by a deputation from their body, or otherwise, as may be most convenient.

(Signed) ROBERT RAINY PENNINGTON,  
President.

Offices *pro tem.*, Hanover-square Rooms,  
Dec. 24, 1846.



## PAINLESS SURGICAL OPERATIONS.

We have been favoured with a copy of the *Birmingham Journal*, from which we extract the following interesting narrative:—

"Yesterday (Friday, Jan. 15th), in the presence of a numerous assemblage of students and influential practitioners of the town, ethereal vapour, as an antidote to pain, was tried at the above institution. The subject of the operation was Mary Ann Chambers, an interesting female, twenty-two years of age. She was suffering from scrofulous ulceration of the foot, implicating some of the more important of its bones. The disease had existed above two years; nine months of which she had passed in the hospital, under the care of Mr. Knowles. Before entering therein, various remedies had been used, but without avail, and after her admission, other plans having proved ineffectual, amputation was determined upon. Professor Parker kindly lent his inhaling apparatus (a modification of Robinson's, and which we understand has lately received some further improvements) to be used upon the occasion. The patient had had two experimental trials with ether, which was found to produce, to all appearance, complete temporary insensibility. At a quarter to eleven, yesterday morning, she began to inhale the ether preparatory to the operation; in two minutes and two or three seconds she was under its influence, when the knife of the operator, Professor Knowles, made a sweep through the integuments of the anterior part of the leg; a sudden but transient frown was all the change that passed over the features. The knife was next passed through the leg, close behind the bones, whence it was directed backwards, slantingly, cutting all before it. During this part of the operation the patient uttered an audible moan, but it was evident to those who heard it that it was very different to the cry or shriek of an individual in a state of consciousness. There was no bandage over her eyes, and it was quite clear that she was in no degree apprehensive of what was passing around her. Directly that intelligence returned, she asked if the foot were off? On being told in the affirmative, she seemed to doubt the truth of it, and asked to be raised that she might look. In a short while, when the effects of the inhalation had further passed away, she complained of the pain she suffered from the exposed stump, though, of course, at this time the pain was incomparably less than it had been a few minutes previously. She was now asked, consciousness having fully returned, whether she felt the operation, or was in any wise apprehensive of it, when she unhesitatingly said 'No.' Two or three times was she questioned as to whether she had felt any pain during the amputation, and she invariably answered in the negative. The question was mooted, whether the knitting of the brows, and the moaning, did not indicate suffering? That mentally there was none, was proved in the fact, that directly the girl awoke from her lethargy, she was unconscious how far the operation had advanced, though the foot had been off two or three minutes; and she herself repeatedly averred that she felt no pain whilst the knife was in use. This is perfectly consistent with the fact, that people may cry, and shriek, and scream in their sleep, without knowing anything of it or its cause after having awakened; and that, during profound states of coma, they will sometimes start and make noises, while there is plainly nothing but organic sensation remaining.

"Further to ascertain, however, the effects of the ether, the patient was again put under its influence, prior to the sutures being placed in the flaps of the stump. This operation is often a very painful one, if the needle be passed through the skin from *without, inwards* (as was intentionally done in this case), yet the patient gave no proof whatever of being affected by it, and, on recovering herself, was

totally unconscious of what had been done. She was very comfortable after the completion of the operation, and we understand is doing remarkably well."

We have been favoured by Professor Parker with the details of another operation, performed on the evening of Tuesday last, by Mr. Partridge, of Birmingham, assisted by himself. The subject of it was a lady, seventy years of age, suffering from strangulated femoral hernia, the size of two fists. Owing to the extreme contraction of the aperture (not admitting even the point of the little finger), through which this protrusion of bowel and omentum had passed, all attempts at reduction were fruitless, and an operation was the only resource. Without apprizing the patient of what was going to be done, the inhaling apparatus that had been used for the operation at Queen's Hospital was brought into the room, with the operating instruments, which were carefully concealed. She was then requested to breathe from the mouthpiece, being told that it was to produce a relaxation that would enable them to push the bowel back into its proper place. In less than three minutes she was rendered insensible, when the taxis was again tried, but ineffectually, and the operation was forthwith prosecuted. The tumour was on the right side, and her hand lay listlessly near it. The first incision through the integuments bounding the inferior portion of the hernia was upwards of five inches in length, yet the patient's hand never moved, and the only stir she made was in slightly drawing up the right leg. From the commencement of the inhalation to the fastening the last suture, the time occupied was about twenty-two minutes, during which there was no consciousness whatever, nor the smallest indication of suffering.

When the patient awoke, she was informed that the obstinacy of the case was such that it would be necessary to perform an operation; to which she assented, at the same expressing a wish that it should be proceeded with and finished as soon as possible. When told by Mr. Partridge that it was all over, she could scarcely be induced to credit his statement.

This case appears to us to be one of the most interesting and complete of any yet recorded. The age of the patient, the great size of the hernia, the complexity of its situation, and the tension of its stricture, all combined to make the operation not only difficult but dangerous; whilst the utter ignorance of the patient that the operation was impending, her complete insensibility during it, and her subsequent surprise on being told that *it was done*, all tend to prove how valuable an agent is now placed in the hands of the surgeon, to avert one of the great difficulties that usually beset the more painful operations. There is another feature in this case which we think of great practical importance. The question has often been asked, how should a patient be treated with the ethereal vapour for an operation that is likely to be protracted? It is obvious that the respiration of this intoxicating atmosphere cannot be long persisted in without the risk of producing asphyxia, or some direct or indirect cerebral mischief; and yet, to withdraw it before the completion of the operation, is to endanger the success of its stupefying effects. We think Professor Parker's observations on this point are of great value. In the case just narrated, the consequences would most likely have been fatal, of allowing the patient to breathe the etherealized atmosphere for twenty-two minutes, and yet to

have withdrawn it altogether after the first indications of insensibility would have been to have had a return of consciousness too soon. For the Professor observed, if he removed the mouthpiece for a few seconds, that there were certain premonitory signs of returning intelligence. But to preserve the insensibility requires less of the vapour to be breathed at once than is required to produce it. He consequently found that, if he allowed four inspirations of atmospheric air regularly to alternate with two inspirations from the inhaling apparatus, the prostration and painlessness continued complete! We think, with our talented correspondent, that in this way insensibility might be preserved long enough for the most tedious operation, without any injury resulting. This, of course, is premising that the individual so subjected shall offer no constitutional or casual impediments to the ordinary and safe action of the ether. It may happen that the rule for respiration given above, and which applied so well in the case to which it refers, will not apply to all cases. This, however, the operator will easily see at the time of its being tested, and vary it accordingly. But at least it is of no inconsiderable value to have a rule given, for whatever exceptions occur to it will necessarily suggest themselves, and the requirement also, during the period of its application. For this, as well as for the other portion of his valuable communication, we are much indebted to Professor Parker, who has promised to furnish us with future results of his experience on this most important subject.

We perceive that on Tuesday last he delivered a practical lecture on the inhalation of ether before a crowded audience in the Theatre of Queen's College, Birmingham. An abstract of his lecture lies before us, of which we hope to make ample use in the future articles we intend devoting to this important topic. On the present occasion, however, we cannot help mentioning that Professor Parker's researches appear to prove that the operation of ether is not constant, either in the nature or the extent of its physiological effects. We perceive that, in one patient experimented upon at Queen's College, the most perfect tranquillity and serenity were produced, the patient's eyes continuing wide open and immovable, yet expressive of some agreeable thought having taken possession of the mind. After a time she fell into a listening-like posture, that would not easily be assumed, and by no means easily maintained, by a person awake, and was then in a condition approaching that of catalepsy. In another case the action of the ether showed itself by manifest signs of pugnacity, so strong and determined that it required the efforts of six or eight students to hold him. Directly that he began to recover, he felt in each of his pockets, and drew forth his watch to examine it. When consciousness had quite returned, he said he had been dreaming of a conflict with some fellows who had endeavoured to rob him.

As the *Medical Times* was the first to give an account of the use of ethereal vapour in this country, so has it been the only medical journal that has regularly reported the experiments and observations upon it, made in different parts of the kingdom. Of course, on a subject like this, the great object to be answered is to obtain the greatest possible body of evidence, before inferences are drawn from it. This we shall continue to seek after with all diligence, and we invite the profession to aid us regularly with the results of their experience, in return for which we promise them,



hereafter, a summary of what has been done with the vapour of ether, and our own deductions concerning its *modus operandi*.

[From the *Boston Weekly Advertiser*.]

MR. EDITOR,—I was much surprised this morning by a letter in your paper from Dr. Flagg, in which he says he shall take possession of the invention for preventing pain in surgical operations. This letter seems to be nothing but a repetition of a series of remarks by Dr. Flagg, in the *Medical and Surgical Journal* of last week, in which he attacked the writer of a former communication to that journal. Below is a reply to Dr. Flagg, from the *Medical Journal* of to-day. I have only a few remarks to add to it.

Dr. Flagg talks a great deal in your columns of "right," "the broad principles of right," and "morality." He says, "my sole aim in the matter has been for the right." Now, unless he can show, and I do not know any body else that can, that, to use his own words, "it has been known and published for some years that the vapour of sulphuric ether would produce the visible effects now said to be discovered"; "that the vapour of sulphuric ether, if inhaled into the lungs, will produce such a state of unconsciousness as to admit of some brief yet severe operations in surgery,"—unless he can show this, the invention is original with those whose names the patent bears, and Dr. Flagg, in using it for his own advantage on "the broad principles of right and morality," seems to me to be considerably more zealous than consistent. About the patent I have nothing to say; I am perfectly satisfied and content with the legal advice I have long since taken. I subjoin the article alluded to from the *Boston Medical and Surgical Journal*.

19, Tremont-row. W. T. G. MORTON.

SIR,—I observe, in the last number of your journal, an article entitled "The Inhalation of an Ethereal Vapour, to prevent Sensibility to Pain, &c.," signed by J. F. Flagg, M.D., a considerable part of which is devoted to comments upon a paper of mine in the same journal of the date of Nov. 18, 1846. Any one who will trouble himself to examine that paper will find there a narrative of physiological facts observed by myself, with a few concluding remarks connected with the patent right, intended chiefly to inform the medical profession, at the request of the inventors, that every practicable facility would be afforded to them in their use of the new process. It was far from my intention to take part in any differences likely to arise from the invasion of the patent, and I indulged the belief that I had avoided any points of a controversial character.

It may be necessary, however, to notice one or two points in the communication of Dr. Flagg, but I do so with regret, that they should have emanated from so respectable a quarter. I disclaim any interest of any kind whatever in the matter under discussion, except the heartfelt desire I have, in common, I believe, with almost every man in the community, that full justice should be done to the inventors of a method by which the whole human race is benefited; and I regret that an article embodying, as I believe this does, the views of those who would appropriate to their own advantage the discovery of others, should have first emanated from a gentleman for whose position I entertain, in common with others, much respect.

I am free to say, that I believe many persons besides myself would have been gratified if this invention could have been issued to the world unfettered by any restrictions of law or private right; but when your correspondent, in his anxiety to take possession of the invention, refuses to allow to Drs. Jackson and Morton any right to their discovery, or to admit any "apology" for the patent, I am ready to show what I consider their right to be, and shall also take the

liberty to examine how far Dr. Flagg has sustained his position.

The history of inventions is well known. Some fortunate individual makes a discovery: this individual is frequently not he who has investigated the most deeply or theorized the longest upon the subject; though the discovery itself is all the evidence the public can require of his right to receive for it an equivalent. But no sooner is the discovery announced than a multitude of individuals begin to recognise their own claims to a reward; and we hear that "there was nothing new in the discovery"; "they were quite near it"; "they had produced the same effect." It is rare, however, that a man who offers no evidence of any participation in a discovery, as in the present instance, openly avows his intention to share in the profits. This point deserves further consideration.

The inventors of a method of producing insensibility by inhalation have shown an almost infallible way of annihilating the pain of some of the most formidable surgical operations. If any plan were to have been devised for promoting the comfort of the race, it would have been difficult to suggest one so wide in its application as that which should obliterate sensibility at will; which should mitigate the sufferings of those who are called upon to endure pain in its most atrocious forms. If any individuals have bestowed this inestimable boon upon the race, they have a right to look to their race for a substantial return in some shape or other. Who, then, are these individuals? I can find no evidence that the invention would not have slept for twenty years longer, had not Drs. Morton and Jackson demonstrated it to the public.

I have no prepossession in favour of the tribe of *ex post facto* inventors, who always settle, like parasites, upon every recent invention of any pecuniary value. Either the discovery was previously made, or it was not. If it was, we have only the alternative of supposing that the fortunate individual saw fit, for some inexplicable reason, to keep in his own bosom a secret which he knew to be of inestimable value to the whole human family. I prefer to believe that it was not.

But what sort of claim is now made to previous knowledge upon the subject? Is the maid-servant mentioned by Dr. Christison, who died in the cause, to be held as the discoverer? or the gentleman who recovered from his lethargy? or yet, your correspondent who "almost fell asleep"? Obviously not. These facts were mere suggestions, pointing to a hypothetic principle; and it was the business of those who received such hints to have pursued them till the single fact was generalized and the principle established. Drs. Morton and Jackson have done all this. They have struck out a new path; and even when future science shall have abridged and improved the present method, or substituted another for it, it will not detract in the slightest degree from the merit of the original discoverers of a great and novel principle.

It is fair to presuppose that your correspondent has ample grounds for availing himself of this discovery, without offering to the inventors a recompense. I shall examine these, as far as I am able to understand them. And, first, let me separate the question of legal right from that of common right and justice. With the former I have nothing to do. It can only be decided by those who possess competent legal knowledge. Your correspondent exclaims, "What is patented? A power? A principle? A natural effect? The operation of a well-known medicinal agent? I doubt the validity of such letters patent. It would seem to me like patent sunlight or patent moonshine." This figurative expression of Dr. Flagg's legal opinion may be of great value, but it may be mentioned that the inventors have, on the other hand, the opinions of several eminent authorities, and also that of the commissioners at Washington, that the patent is perfectly valid and tenable. Leaving, then, for those who are competent to it, the discussion of the law of the questions, I shall inquire on what grounds of professional right, or

of common justice, your correspondent proposes to appropriate this discovery?

In the first place, he objects to the use of patent or secret medicines. "I shall not," says he, "obtain and use it as a secret medicine; I shall not purchase and use it as a patent medicine," apparently on the ground that "the enlightened and regular medical faculty of Massachusetts are associated, and have arrayed themselves against all secret remedies or patent medicines, and therefore cannot feel themselves at liberty," &c. &c. "But," says he in another place, "I shall use it." The scruples of your correspondent lie, then, not against the use of the discovery, but against the purchase of it. I shall attempt to remove all hesitation he may have on this point.

In so doing I may state that, as far as my humble influence was concerned, I urged the adoption of the new method in one, at least, of the early cases which occurred at the hospital, without consulting the by-laws of the Massachusetts Medical Society, in full reliance upon the wisdom and liberality of the framers of that code. A subsequent examination of it has confirmed my position. I am unable to find any law bearing directly or indirectly upon the present case. The tenth by-law of the Massachusetts Medical Society is directed, as I understand it, against any one who shall publicly advertise or offer to cure disease by medicine the composition of which the advertiser makes a secret. It deals with the question of proclaimed secrecy; and in my view is directed against that prudish class of practitioners whose ostentatious solicitude to conceal their wares is their only chance of persuading people of their value. The same remarks apply to the fifty-eighth by-law. I leave others to judge of the propriety of applying such restrictions to a method which has been voluntarily announced to every surgeon who has used it, and of which the immense utility is universally conceded. I am unable to discover that your correspondent has here any ground for his scruples about purchasing a right.

But, says he, "no one can restrict them from using what is used for the relief of suffering humanity." It is, then, "suffering humanity" which compels them to share in the equivalent which the public is returning to the inventors. But why not send "suffering humanity" to Dr. Morton, or call him to its aid? Dr. Morton has made ample arrangements for its reception at No. 19, Tremont-row, or for its relief at the houses of other dentists. When the papers coolly announce "the best method in use for narcotizing patients," or "the improved method," I for one enjoy the audacity of those who assert their intention to have a share in any profits to be made. But it is painful that any man should be compelled by his conscience to receive a part of the substantial gratitude of suffering humanity, when they to whom alone its gratitude is due, have made ample arrangements for its relief.

I confess my inability to follow your correspondent in a large part of his argument, and shall therefore only allude to it. He says:—"The free use of the article has been ceded to the surgeons of the Massachusetts General Hospital, and these gentlemen would receive it or adopt its use on no other condition, of course, than that of knowing what it was, and having full and free control of it for that institution. Hence, I ask, why I must now purchase the right to use it?"

I can only interpret these logical sequenese upon the ground that your correspondent confounds the question of secret and that of patent, and infers that what is no longer secret is no longer patent. It is understood that the matter was secret just so long as was necessary to secure patents here and elsewhere, and no longer. But the fact of its subsequent publicity does not change the question of property. The discovery and the patent right still belong to the inventors; and your correspondent, and whoever else of us wishes to avail himself of it, must accede to their very reasonable terms. It remains to say a word



with regard to three very inoffensive "apologies," "two of which" your correspondent considers to be "without force," while "the total incorrectness of the main part of the third must be apparent to all." I am unable to see that your correspondent has invalidated the force of the two first. With the intention of testing the correctness of my statement, that certain secrets are conventional among dentists, I have applied to three of the most eminent dentists of this city, and to whom I can refer your correspondent, who do not hesitate to state that they are so. But if Dr. Flagg still holds that he "does not know of anything which is practised in dentistry, even relating to the mechanical department, which is kept secret by duly educated dentists," I know no way in which, according to his own views, he could contribute more directly to the cause of "suffering humanity," than by volunteering to communicate to "duly educated dentists," for the mere equivalent of the time occupied in so doing, a concise account of his methods in some of the more recondite departments of his art—for example, in the composition and manufacture of mineral teeth. I am confident that the number of applicants, who would amply compensate him for his time, would testify at once to the demand for this sort of knowledge, both in town and in the country, and to the general appreciation of his skill.

I have been led to exceed my intended limits, because I was desirous of answering, in some measure, a class of objectors, of whom I regret that your correspondent should be the representative. No one can doubt that an inestimable discovery has been made. Though it may be regretted that it has not been made free to all, yet the inventors have an undoubted legal right to pursue with regard to it whatever course may seem to them best. They have made arrangements which place it at the command of any who are disposed to avail themselves of it; and I cannot but think that the community, if not the Government, will be forward in recognising the magnitude of their claims. I have only to add that I am not ambitious of controversy, and that I shall make no further communication upon this part of the subject, unless the position I have here assumed shall seem to me to be in any way invalidated.

Your obedient servant,

HENRY J. BIGELOW.

Boston, Dec. 4, 1846.

N. B. I had occasion, a few days since, to tie the femoral artery of a patient who was unable to pay for the operation. I found no difficulty in obtaining the gratuitous use of the method, nor do I conceive that others would, in similar circumstances. It may be added that the patient was wholly unconscious of the dissection.—H. J. B.

We are informed that Mr. Lawrence performed one of the most painful surgical operations—extirpation of the eye—on Friday last, with the assistance of vapour of ether. The patient inhaled the vapour for two or three minutes, by which he was kept in a quiescent state for five or six minutes. During this time the operation was completed. The patient, on recovering, expressed his belief that the vapour had failed, and could not be convinced that the operation was already performed until assured that such was the fact by an old servant. Mr. Hooper attended and administered the vapour by means of a similar apparatus to that constructed by Mr. Robinson.

Operations on the teeth have now become of daily occurrence, so that there is little interest in reporting them, except to those who happen to be novel operators under the new method, and who are delighted to see their names in print.

The two patients operated on at Guy's Hospital last week are progressing towards convalescence.

A very important and highly successful instance of the application of ether occurred on Wednesday at the Westminster Ophthalmic Hospital, where

Mr. Charles Guthrie, one of the surgeons of that institution, performed the operation of lithotomy on a young man with the most complete success. The patient was a man of rather spare figure, and aged about twenty-five. At three years of age he had suffered from a stoppage of the urinary passage, but by the use of the catheter he was relieved, and until about three years ago he had been free from the disease. Three years since he was again attacked, but, wanting the courage to undergo an operation, he bore his infirmities for some time, and was at length temporarily relieved. During the past six months, however, he has been suffering the most excruciating torture, and the presence of a calculus in the bladder having been ascertained beyond all doubt, he was advised to submit to an operation while under the influence of etheric vapour. Mr. Guthrie, having obtained his consent, Wednesday was appointed, and shortly before two o'clock the patient was brought into the theatre of the institution, where a large assemblage, including several personages of distinction and eminent medical men, had previously arrived by invitation. Amongst those present we observed Prince Jerome Bonaparte, Lord Dalmeny, &c. The patient having been placed on the operating table, the apparatus by which the vapour is inhaled was applied to his mouth. For some moments it had no perceptible effect; in about two minutes a want of consciousness became perceptible to the observer, and in less than four minutes the patient was in a perfect state of insensibility. The operation was now commenced by Mr. Guthrie, and in about three minutes a rough stone, considerably larger than a hazel-nut, was extracted from the bladder. Another minute, and the operation was completed, the patient not having betrayed the slightest symptom of pain from its commencement to its close. On being removed from the table the poor fellow remained in a state of unconsciousness for a few moments, but after the lapse of about four minutes, during which interval he had been placed in bed, he regained his senses perfectly. On being questioned by Mr. Guthrie as to whether he was conscious of what had taken place during the preceding few minutes, he replied, that he was cognizant of nothing save having enjoyed a pleasant dream, in which he fancied himself at his native village, in Norfolk. His pulse, it should be stated, remained perfectly calm, and, so far as could be ascertained, he had suffered no inconvenience from inhaling the ether. It is needless to say the result was extremely gratifying to all assembled, and to none more so than the operator himself. [Since the above appeared in the *Times* of Thursday, we have ascertained that the patient is going on well, is free of pain and suffering, and is delighted with the result of Mr. Guthrie's operation.]

[To the Editor of the Medical Times]

SIR,—Having now administered the vapour of ether for the purpose of rendering surgical operations painless in a great number of cases, at our metropolitan hospitals and at my private residence, with perfect success, permit me, if not encroaching too much on your valuable columns, briefly to state the appearance of the patient, when under the influence of the vapour, which indicates the proper time for the operation to commence.

As my own operations on the teeth have now become numerous and satisfactory to those medical men who daily witness them, I will not occupy the time of your readers by entering into details.

At the commencement of the inhalation, always allow the patient to inhale the vapour three or four times without closing the nose. The nose being closed, observe carefully the appearance of the eye, the pupil of which will be found in most cases, after about a minute's inhalation, to be considerably dilated. After eight or ten more inspirations the pupil will remain stationary and fixed, for a period varying from two to three seconds; it will then turn towards the upper eyelid, and this motion will be repeated several times. If the

inhalation be continued the pupil will be observed to turn beneath the upper eyelid and remain fixed. Three or four inhalations more, and the operator can commence.

In operations which are protracted, and require any length of time, cut off the vapour by means of the stopcock attached to the apparatus; permit the patient to breathe the atmosphere through his nose five or six times; again turn on the vapour—breathing alternately atmospheric air and the vapour of ether, at intervals of half a minute, until within two or three minutes of the completion of the operation, when the mouthpiece may be removed with perfect safety as to the result.

I am, Sir, your obedient servant,

JAMES ROBINSON.

7, Gower-street, Bedford-square, Jan. 16.

These remarks are not offered from a desire for reputation, but because a letter from a correspondent in the *Medical Times* has excited them.

Your correspondent offered an explanation of the rationale of the effect of ether in preventing pain from surgical operation, but failed to afford it, although Dr. Searle displays no little chemical ingenuity in his explanation.

The philosophy of an explanation, of course, depends on its rationale, which must first exhibit a base on which to rest.

To understand the wonderful effect of ether, let us inquire into pain and its cause. Pain is always attended with pressure of arterial or vivified blood in that part that is painful. Where there is not that pressure there is no pain. Sentience being the tenant of the nerves and declarative to the living creature, in ratio to their distention and consequent pressure from arterial and vivified blood, we experience pain. In proportion as that arterial distention ceases is pain mitigated. The cause of that distention is in the increased action of the arteries forcing onward to their extremities their contents, which extremities become gorged, and the nerves capable of declaring that state are sentient of pain. The surgeon's knife, from the sentience of those nerves, calls or determines to it an increased flow of blood. Thence the nerves of touch impinge the sentient organization with the sensation of pain.

To suspend the painful function of touch, without suspending the functions of other sentient organs or their impinges, has been the wonder of this age, and is the subject of my remarks.

The endowment of the nerves with sentience of contact is now comparatively under human control. To obtain which, acceleration of arterial circulation is at first promoted, because it will be followed of necessity by exhaustion and loss of energy; and as energy of the arterial circulation is diminished, congestion of the veins filled with exhausted blood is induced, which is asphyxia.

No excitement can take place without exhaustion of its cause, and then follows depression. In this fact lies the explanation of the *syneope* of touch, which inhalation of ether induces that a surgical operation may be performed.

The learned doctor has yet to show that the vivification of arterial blood arises from the absorption of oxygen, although its bulk be reduced by respiration. I beg to suggest that the vivification of arterial blood, beyond the absorption of nutritious fluids, is the effect of electric fluid being imbibed in the action of respiration of air in terrestrial animals, and of water in aquatic animals.

The presence of that fluid in oxygenated air and water I need not here attempt to prove. Indeed my remarks are already longer than at the beginning of them I intended, but trust, if they have truth in their character, you will adapt them to the scientific times.

I am, Sir, respectfully,

G. R. SKENE.

22, Haverstock-hill, Jan. 18.

[To the Editor of the Medical Times.]

DEAR SIR,—On Saturday last I assisted Mr. Bullen, of this town, at an amputation of a scirrhous breast, on a single woman, forty years of age.



The inhalation of ether was employed, and the apparatus consisted of a plain tube and mouth-piece of wood, inserted into an ox bladder. About 5x. of ether were added to 3iss. of water in the bladder, and the latter extended by atmospheric air, introduced by means of a common pair of bellows. The patient was directed to expire, and the ether was immediately applied. In four minutes she appeared unconscious, and the pulse, which before the application was slow, but full, was now diminished in strength and frequency.

The removal of the breast occupied about five minutes, in the middle of which animation was apparently returning, but, upon the ether being again inhaled three or four times, she relaxed into her previous state. After the removal, and previous to the sutures being applied, we found it necessary to give her three or four glasses of wine.

Previous to the sutures being applied, the effects of the ether had quite passed off, and I thought the opportunity a good one to observe the difference, if any, whilst under its influence and without. Not only was there motion of the lips, but also slight expression of pain on their application, which during the operation were both entirely absent. In answer to the inquiry if she felt any pain, she replied, "I do not know whether I did or not"; which must be, I think, positive proof that she did not.

Yours truly,

EDWARD SAYLE.

King Staith-square, Lynn, Norfolk, Jan. 18.

On Thursday afternoon an Irishman was brought into the London Hospital with a compound fracture and dislocation of the tarsal bones of the foot. The man, after considerable reluctance, at last consented to amputation of the leg, provided the pain was in some way diminished. The vapour of ether was had recourse to, and applied in the presence of Dr. Pereira, and a numerous assembly of medical gentlemen. In five minutes the inhalation proved successful, and in less than another the leg was amputated by Mr. Adams, the patient during the time giving sly winks and facetious nods to those surrounding him. During the intervals of the inhalation his observations were of the most facetious character, forcing from the bystanders involuntary laughter, and converting that which to the poor fellow was a most tragical event into a scene little short of a farce. Upon removing the ether he called out, "Hold hard there a bit, let's have another go at the grog," which he drew in with the greatest avidity. Not for one moment during the operation did he exhibit the slightest symptoms of pain, but, on the contrary, his countenance was expressive of the greatest hilarity; and at the conclusion of the operation, after the effects of the ether had passed off, he could scarcely believe that his leg had been so painlessly removed. His ideas whilst under the influence of the vapour were similar to those of a person enjoying a pleasant dream; he had fancied himself walking in the streets of Cork with his sweetheart, and, to use his own expressions, "enjoying most pleasurable sensations." He has slept well during the night, and is in every respect progressing favourably.

[From the *Jersey and Guernsey News* of Jan. 16.]

On Thursday morning, Drs. Preshaw and Clement removed a large tumour from the left arm of a female residing at St. Clement's, by a perfectly painless operation: this being the first time that the inhalation of ethereal vapour has been applied for such a purpose in Jersey, and the results have been most satisfactory. The above-named gentlemen tried the effects of ethereal vapour upon themselves, by means of the instruments used by Messrs. Herapath and Robinson, and also recommended by Dr. Collyer, but without producing the desired effect. They have, however, devised a most complete instrument, combining the principles of the various instruments now in use, and have produced a machine rendering the vapour powerful to any degree, and perfectly manageable.

On Thursday morning the patient was placed

in a chair, and made to inhale the vapour. After forty seconds she was thrown into the desired condition; the tumour was removed; and though it required the greatest care, being directly over the brachial artery, and occupied two minutes in extirpation, the patient was perfectly unconscious.

After the removal of the tumour, one of the surgeons said, "Mary, how do you feel?" "Quite well," said she.—"Have you felt any pain?" "No!"—"The operation is over." "Can it be possible? God bless you, gentlemen!"

[To the Editor of the Medical Times.]

SIR,—Although I have devoted much time to making mouthpieces and valves for inspiration of vapour of ether, and respiration also, I must bear testimony to the merits of Herapath's system of using a bladder with a large mouthpiece attached to it, and this I have formed with the hollow end of a small elephant's tusk, or the tip of a walrus's tooth, with a large hole made through it.

In my most successful cases, half an ounce of fresh-drawn sulphuric ether has been placed in the bladder and well shaken; the bladder has then been inflated, and the tube placed in the patient's mouth; owing to its size the corners of the mouth become air-tight during the inspiration. Expiration into the bladder appeared to me to facilitate the syncope, which in a good subject, to whom I can refer, came on in a quarter of a minute, and remained altogether half a minute; and this person assured me that he experienced no pain whatsoever during the extraction of the tooth. After consciousness returned, a faintness remains some minutes, rendering restoratives necessary.

I fear with children some difficulty will exist, as the pungency of the ether, and a coughing which immediately comes on, create too much alarm. But to delicate females easily acted on, and whose health requires all absence of fright and excitement, I recommend it most strongly. With regard to strong men, I would not as yet recommend the vapour of ether. I hope, however, that soon instruments of different dimensions, and modified in strength, will be employed, and necessary rules will be laid down, when experience has better taught us its principles of application. I would recommend dentists, unless medical men, in general to refrain from its use.

I am, Sir, your obedient servant,

S. WAITE.

The inhalation of the vapour of ether has been applied by Mr. R. Lucas, of Liverpool, to the relief of pain during operations on the brute creation. A tumour was removed from a Newfoundland dog while under its influence. Not only was the tumour removed without pain, but the dog has gone on satisfactorily since the operation.

The following observations on the new application of ether are extracted from the *Gazette Médicale*. They show that the attention of our French neighbours is beginning to be awakened: "Both the English medical and political journals are filled with interesting details of the employment of inhalation of ether as a means of producing insensibility during surgical operations. We have been aware of this discovery for some time, but as it was at first especially a question of drawing teeth without pain, we waited till the results had acquired a certain amount of notoriety before we made mention of it. Numerous trials have been repeated by surgeons worthy of confidence, and the result has proved such as was announced in almost all the cases. We must then receive this discovery as a new and precious conquest of science in the cause of humanity, and offer a short notice to our readers." After giving short notes of some of the more important cases with which our readers are familiar, our worthy contemporary concludes in the following words:—"All the English surgeons appear to be completely reassured as to the possible inconveniences of this method. None have at present considered

the influence it may have on the consequences of operations. It would appear, at first sight, that by preventing pain, agitation, and loss of vital force, which almost all operations cause, it could not but be favourable. It remains to be seen whether this favourable condition may not be overbalanced by the influence of this ethereal intoxication: for, in order to arrive at the desired result, it must not be forgotten that the dose may be pushed to a poisonous extent. Whatever there may be in this restriction, we cannot but perceive in this discovery a method by which many physiological questions may be answered, and many practical applications made in a large number of lesions and diseases in which it will prove a powerful palliative, if not an efficacious remedy. We shall not neglect to give our readers information of what is done in this matter."

MEDICAL INVENTIONS.—An interesting paper on a pneumatic inspirator, for the protection of dry-grinders and others from dust and noxious vapours, was brought before the Society of Arts, June 3, 1846, and its purposes explained by Mr. Startin, the surgeon of the Cutaneous Institution, its inventor, by which it would appear to be applicable to the breathing of gases or heated air, and also as a diving apparatus. We learn that the consideration of this subject will be resumed on Wednesday next, the 27th inst.; and the matter is especially interesting to the profession at this moment from the fact that Mr. Startin has modified his instrument for the purposes of inhaling ether, iodine, opium, mercury, &c., which will furnish medical men with the best and cheapest means yet employed for these purposes. We believe that we are authorized in stating, that as low a sum as *half a guinea* will furnish the complete apparatus, which has been entitled the Pneumatic Inhaler. We purpose presenting our readers with a copy of Mr. Startin's paper next week.

Mr. Edwards reports a successful case of the use of ether, in amputation of the thigh.

## MISCELLANEOUS CORRESPONDENCE.

### INDEPENDENCE AND DUTIES OF HOSPITAL SURGEONS IN FRAMING HOSPITAL REPORTS.

PROFESSOR SYME AND THE EDINBURGH INFIRMARY.

[To the Editor of the Medical Times.]

SIR,—Without entering on the merits of the question presently at issue betwixt Professor Syme and the Managers of the Edinburgh Infirmary, —who, it is proper to remark, are *annually elected*, and not house-governors for life, as in many English public charities—the accompanying copy of a letter, published by its author in the Edinburgh newspapers, will not, it is thought, be unacceptable to the profession—all more or less interested in duly maintaining the independent action of their brethren in public medical institutions. While we would not withhold from managers of hospitals one iota of that power which may be necessary for securing to the public the fullest possible benefit of all medical charitable institutions, it will not be denied, we believe, that, beyond this, all unnecessary interference with the medical attendants must be not only galling in the extreme to their feelings, but, eventually, hurtful to the institutions themselves. The grievances complained of are sufficiently laid open in the letter itself; and it remains for the contributors to the hospital to decide at their next general special meeting—early in February, we believe—whether they shall view them as really such or not. At a public meeting held only a few days previous to the date of Professor Syme's letter, Dr. Christison stated, that "the appointment of the surgeon's clerk, or the house-surgeon, not being vested in the surgeon, was the keystone to the whole"; though, from circumstances that have since transpired, Mr. Syme, it is believed, does by no means look on this as such, though no doubt considered by him as a part of the management



requiring amendment. Dr. Christison at the same time stated, that, even in the medical clinical wards, where the clerks are entirely under the control and appointment of the physician, he had not been able to comply (in deference merely to the recommendation of expediency of the *Senatus Academicus*) with the demands of the managers, without "a mental reservation."

At the same meeting, and though without expressing any decided opinion as to the point at issue, the Lord Provost of Edinburgh, Adam Black, Esq., bookseller, was pleased gratuitously to state, that in his intercourse with society, necessarily pretty extensive, he had nowhere met with a more wilful or obstinate class than that of medical men, which, if seriously meant by his lordship, did not seem to be entertained by the meeting as otherwise than a passing joke at the expense of the profession. But to resume.

The methods of reporting cases, in public, in the Edinburgh Infirmary, must be pretty well known to the profession. They are briefly and neatly detailed in the preface to the widely-known work "On Purgative Medicines," of the late Dr. Hamilton, forty years physician to the Infirmary, where the cases thus reported are there stated "to possess an authenticity peculiar to themselves; and, in the establishment of medical facts, may be produced as an authority that cannot be controverted." And, whether rightly deserving this eulogy or not, no change, it would appear, in the mode of keeping these public records, had ever been thought of till March, 1844. Had anything then occurred, the public will ask, on the part of the medical men or their clerks (in the surgical department, necessarily the resident-surgeon), to render such deviation from the old and established practice necessary or proper? For the sake of the managers, and of the institution itself, we hope such explanation will be given as may prove satisfactory; though it is evident such change, whether meant or not, necessarily conveyed to the public a want of confidence in the physicians and surgeons, originally the principal supporters, as they have ever been the best friends, of this most useful institution. So far as brought out in the speeches at the public meetings, or in the correspondence, the *sic volo, sic jubeo*, of the managers would appear to be the only reasons hitherto assigned. As regards the profession in general, one thing is pretty evident, that on the liberal adjustment of the questions involved may ultimately rest the independence, in public life, of our best hospital surgeons and physicians, and eventually the interests of medical charitable establishments themselves, for reasons too obvious to require enumeration.

#### AN OLD INFIRMARY PUPIL.

Banks of Lochleven, Jan. 16.

#### MEDICINE IN WALES.

A coroner's inquest was held at the Owain Glyn-dwr Inn, Dowlais, before William Davies, Esq., coroner, on view of the body of James Evans.

Eliza Davies, widow, sister of the deceased, stated that he kept his bed one month previous to his death; he died on Thursday night last, December 17; his age was nineteen years last March; he lodged with her at her house, near Pontgellyvaillog; Mr. Lewis, druggist, gave him medicine, which cost 1s. 6d.; salts was part of it; could not exactly say how long previous to keeping his bed, but supposed nearly a fortnight or three weeks; that was six or seven weeks before his death. Richard Thigins, collier, gave him some medicine three weeks previous to his death, in one bottle containing one pint and a half of mixture, and another of one pint of mixture, of which he was to take one tablespoonful night and morning, and for which he charged him 9s. 2d.!

Richard Thigins was then called. He stated that he gave deceased a small bottle containing balsam copaiba, spirits of nitre, Fryar's balsam, and elixir vitriol, likewise the following recipe, which was handed to the coroner and jury:—"Ten grains of groovesupplement to be dissolved in spirits of wine and a pint of frensh Brandy to be Desolved four

and twenty ounes a table sponful to be taken Night and Morning. A Ouns of Salts and Three haperth of Irapiera Mixed in a quart of Water A small Gin Glass to be taken every night." After he attended him, Mr. Powell gave him a box of pills.

Mr. H. P. Powell (late postmaster, Dowlais) called: Stated that the deceased applied to him, and asked him if he could give him something for a certain disease; he told the deceased he had from his late uncle a recipe; deceased gave him (witness) 2s. for the medicine, which consisted of a box of pills, containing one drachm each of calomel, rhu-barb, and jalap, divided into 32 pills, one of which was to be taken night and morning.

The jury, after hearing medical evidence from Mr. Russell showing that the death originated in this maltreatment, returned a verdict to the effect that the *disease* killed the man.

#### GOSSIP OF THE WEEK.

**THE LAW OF COPYRIGHT.**—The trial just brought to an issue by the representatives of the late Dugald Stewart and Messrs. A. and C. Black, in Edinburgh, as involving important legal points, and disclosing some curious literary facts, we think worthy of some special notice. The relative position of author and bookseller has been one too frequently beset with unpleasant suspicion and dissatisfaction, arising mostly from the utter ignorance of authors of the details of publishing, and of booksellers of the pangs of authorship. We are glad, therefore, when a searching trial like the present discloses nothing but the liberality and honour of the bookseller, showing that a truly liberal sum had been awarded, acknowledging the power of the author, and the estimation of the public for the really excellent. The last copyright law settled that the articles contributed to a periodical belong to the proprietor of such periodical, but cannot be published separately without the consent of the author. In the present instance it was endeavoured to be maintained by the representative of Dugald Stewart that the essay (although £1,600 was paid for it) was intended only for the "Supplement of the Encyclopædia Britannica," and not for the re-edition of that work, incorporating all the supplementary and much additional matter. The evidence of Mr. Robert Cadell and other authoritative witnesses, however, put the matter in so strong a light that the idea was considered preposterous, and an immediate verdict given for the defendants. During the trial the magnitude of the expenses of this truly national work, "The Encyclopædia Britannica," seventh edition, in twenty-one volumes, quarto, was shown, and it was proved to have been no less a sum than £125,667 9s. 3d.—a sum which, when considered as the venture of two private individuals, is truly creditable to our native enterprise and energy. This amount, of course, includes every item of expenditure, among which the following are the most important:—

Contributions and editing ..	£22,590	2	11
Printing .....	18,610	1	4
Stereotyping .....	3,317	5	8
Paper .....	27,854	15	7
Bookbinding .....	12,739	12	2
Engraving and plate printing	11,777	18	1

For the contribution of the dissertation in dispute Dugald Stewart received from the firm of Constable and Co. £1,600, and for the accompanying dissertations by Sir James Mackintosh and Sir John Leslie the present proprietors of the "Encyclopædia" paid £1,030. The cost of Professor Playfair's dissertation is not precisely stated, but, if paid for at the same rate as Sir John Leslie's, it could not fall short of £500. For editing the volume the sum of £320 was paid, bringing up the total expenditure for the literary labour of this volume alone to £3,450. Of this outlay only £106,526 had as yet been returned to the proprietors; but we trust that the sale of the stock, which, as it embraces the works of so many celebrated men, must continue for many years, will ultimately reward the spirit and energy of its projectors. — *Douglas Jerrold's Weekly Newspaper.*

**WAR-OFFICE, Jan. 15.**—2nd Foot: Assistant-Surgeon E. Scott Docker, from the 60th Foot, to be Assistant-Surgeon, vice Jopp, promoted in the 36th Foot.

**ST. BARTHOLOMEW'S HOSPITAL.**—John Painter Vincent, Esq., so long and so deservedly well known to the medical profession as the Senior Surgeon of this institution, has just resigned his appointment, and, on doing so, generously presented the treasurer with the sum of £100 for the funds of the hospital. Mr. Vincent is the oldest member of the Court of Examiners of the College of Surgeons, of which institution, we believe, he has been twice elected president. This gentleman will be succeeded in the hospital by Mr. Lawrence. A sharp contest is going on for the office of Assistant-Surgeon. The candidates are, Messrs. Paget, M'Whinnie, and Pennington.

A Dr. Lovell, a disciple of Pricssnitz, has had a verdict of "manslaughter in the first degree" brought against him by a coroner's jury at Enfield, sitting on the body of Martha Higgs, who had been treated on hydropathic principles by him. The autopsy gave evidence of arachnitis and pericarditis.

**OBITUARY.—DEATH OF DR. DAVIDSON, M.D.**—It is with extreme regret that we announce the death of this eminent physician. Dr. Davidson was out in his usual practice last week, but was a few days ago seized, as we understand, with inflammation or other affection of the chest, which carried him off on Tuesday afternoon. Dr. Davidson was an accomplished scholar—rather of a retired and unobtrusive character, and fond of literary pursuits, when not engaged in professional acquirements and practice. In his younger days he visited different parts of the Continent, and succeeded the late Dr. Abercromby as Queen's Physician for Scotland. The doctor was, we believe, about sixty years of age; he has been for some years a widower, and has left a family of several young daughters, with whose sad bereavement the public will feel deep sympathy.—Jan. 1, at his residence, in St. John's-street, Hereford, Frederick Brame Glasspoole, Esq., M.D., in the forty-fourth year of his age.—On the 14th instant, at Warwick, aged seventy-nine, William Blenkinsop, Esq., a member of the council of the Provincial Medical and Surgical Association, and more than fifty years a medical practitioner in the above-mentioned town.

#### MORTALITY TABLE.

For the Week ending Saturday, Jan. 16, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES .....	1291	1068
SPECIFIED CAUSES...	1291	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases .....	169	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat .....	114	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses .....	170	170
Diseases of the Lungs, and of the other Organs of Respiration .....	533	354
Diseases of the Heart and Blood-vessels .....	45	32
Diseases of the Stomach, Liver, and other organs of Digestion .....	85	70
Diseases of the Kidneys, &c.	13	8
Childbirth, Diseases of the Uterus, &c.	15	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	7	7
Diseases of the Skin, Cellular Tissue, &c. ....	8	2
Old Age .....	98	81
Violence, Privation, Cold, and Intemperance .....	34	30



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## ORIGINAL LECTURES.

DUMAS ON ORGANIC CHEMISTRY.  
No. IX.

## ON THE BLOOD.

(Continued from page 318.)

We have now to examine the normal physiological composition of the blood in man. But, before doing so, we will make one important observation:—The blood is found in the economy in two distinct states: as venous, and as arterial blood. The first, having served for the nutrition of the organs which it has traversed, returns to the heart and is arterialized in the lungs; after which, it is again distributed through the body, and brought back by the veins, as before. There is, then, a remarkable difference between venous and arterial blood; but this is a point we shall enter into more fully hereafter.

Arterial blood is the same throughout the whole economy. But it is not so with venous blood; for the blood which returns from any particular organ, in which it has deposited the principles necessary for the nutrition of that organ, —or which removes the matters rejected by it, and destined to be burned,—cannot have the same invariable composition, but must of necessity differ. The venous blood which returns from the breasts, where it has deposited its milk,—from the liver, where the bile is secreted, &c.,—must be different on its return from each of these parts. It cannot have a similar or uniform constitution when taken at the moment of its return to the heart from the lung, as arterial blood, and on its arrival at the lung in the state of venous blood. Now, in our own species, we almost always analyse the blood drawn from the veins of the arm.

The following is the composition of normal venous blood in man:—

Serum .....	870	
Clot .....	130	
	1,000	
Clot—Fibrine .....	3	
Globules { Hematosine .....	2	130
{ Albuminous matter .....	125	
Serum—Water .....	790	
Albumen .....	70	
Oxygen .....		
Nitrogen .....		
Carbonic acid .....		
Extractive matters .....		
Phosphuretted fatty matter .....		
Cholesterine .....		
Seroline .....		
Oleic acid .....		
Margaric acid .....		
Chlorides of sodium .....		
" potassium .....		
" ammonium .....		
Carbonates of soda .....		10
" lime .....		
" magnesia .....		
Phosphates of soda .....		
" lime .....		
" magnesia .....		
Sulphate of potass .....		
Lactate of soda .....		
Salts with fixed fatty acids .....		
Salts with volatile fatty acids .....		
Yellow colouring matter .....		1,000

The fatty matters belonging to the blood are necessarily found in variable proportion according to the nature of the regimen to which the animal has been subjected. If a dog be fed for some time on pure fat, the serous portion of its blood will become perfectly opalescent, owing to the globules of fatty matter which are suspended in it. I have also discovered, on analysing the blood of the dog both before and after such fatty regimen, a very singular result, namely, the presence of a considerable quantity of fat in the serum, while the clot, after being freed from the serum which pervades it, is found almost destitute of it. This fact gives still greater importance to those methods of analysis which, as in the system of M. Figuier, are based on the study of each of the elements of the blood, taken by itself and isolated from all around it.

MM. Becquerel and Rodier give the following as the mean composition of the blood in man and in woman, considered in a state of health, and at the middle age of life:—

The density of the defibrinated blood is equal to 1,060 in man, and to 1,057 in woman. That of the serum may be as high as 1,028 in man, and 1,027 in woman.

The mean composition of the two bloods is represented by the following numbers:—

	Man.	Woman.
Water .....	780.0	791
Globules .....	140.0	127
Albumen .....	69.0	70
Fibrine .....	2.2	2.2
Extractive matters and salts ..	6.8	7.4
Seroline .....	0.02	0.02
Phosphuretted fatty matter....	0.49	0.46
Cholesterine .....	0.09	0.09
Soapy matter .....	1.00	1.05
Blood .....	100.00	100.00
Chloride of sodium .....	3.1	3.9
Soluble salts .....	2.5	2.9
Phosphates .....	0.334	0.354
Iron .....	0.565	0.541

## Proportion of salts in 1,000 parts

of blood ..... 6.495 7.695  
 To be enabled to make a good analysis of the blood in its normal state, we shall find that some precautions are necessary as to the manner of collecting it. The blood, as we have already said, becomes rapidly impoverished in solid materials by repeated venesections. Some experiments, performed on this subject by M. Prevost, give the following result:—

A strong healthy cat was bled freely from the carotid. Its blood yielded—

Serum.	Blood.
900 water	7,938 water
100 albumen	1,184 globules and fibrine
	878 albumen, &c.

Two minutes after, it was bled from the external jugular vein; it then contained—

Serum.	Blood.
916 water	8,092 water
84 albumen	1,163 globules and fibrine
	745 albumen, &c.

After a further interval of five minutes, the internal jugular vein was opened, when its contents were found as follows:—

Serum.	Blood.
915 water	8,293 water
85 albumen	935 globules and fibrine
	772 albumen, &c.

It is thus evident that the proportion of water rises according to the frequency of the bleeding.

M. Lecanu has performed some analogous experiments. The following are his results:—

	Blood of a woman. 1st venesection.	Blood taken same night by a 2nd bleeding.
Water .....	792.90	834.05
Globules and fibrine .....	127.73	87.51
Albumen .....	70.21	71.11
Salts, fatty and ex- tractive matters ..	9.16	7.33
	1000.00	1000.00
	Blood of a strong man 23 years of age	Blood of the same at the 3rd bleeding.
Water .....	780.21	853.46
Globules and fibrine .....	139.13	76.19
Albumen, salts, &c. ....	80.66	70.35
	1000.00	1000.00

The experiments of M. Lecanu thus fully accord with my own. They are, moreover, amply confirmed by similar analyses performed with great care by MM. Andral and Gavarret.

The principal conclusions to be deduced from the experiments which have been made by various authors, as to the composition of this fluid, may be summed up in a few words:—

1. The blood of man contains less water than that of woman, the same proportion of fibrine, more globules, and a little less albumen.

2. The stronger the constitution, the greater the proportion of globules; the blood of lymphatic individuals is poorer than that of sanguine persons of the same age and sex.

3. The proportion of solid matters is greater in adults than in children and in old people.

M. Denis draws from his experiments the following conclusions:—From the second or the third week up to about the fifth month, the proportion of water augments, while that of the globules diminishes. On the contrary, from the fifth month to about the fortieth year, the quantity of water diminishes and that of the globules increases. From forty to seventy, as during the first period, the proportion of water again increases and that of the globules diminishes. The quantity of albumen remains at all ages much the same. According to M. Denis, very young animals have the richest blood. He supports this opinion by the following experiments:—

Blood of a woman nine months *enceinte*—

Water .....	78.10
Fibrine .....	0.24
Albumen .....	5.00
Globules .....	14.07
Extractive matters, salts, &c. ....	2.59
	100.00

## Placental blood furnished by the cord—

Water .....	70.15
Fibrine .....	0.22
Albumen .....	5.00
Globules .....	22.40
Salts, extractive matters, &c. ....	2.23
	100.00

He supposes that the blood of the new-born child presents nearly the same composition as the placental blood, which is, perhaps, rigorously possible. But, as we cannot analyse the blood in a child so young, M. Denis was forced to content



himself by comparing the blood drawn from puppies. A small quantity was taken, first, from the internal jugular vein, and then from the left primitive carotid artery, but within so short an interval that the first bleeding could not possibly have any influence over the nature of the blood drawn in the second. The puppy was three months old.

Arterial Blood.		Venous Blood.	
Water.....	83.00	Water.....	83.00
Fibrine.....	0.25	Fibrine.....	0.24
Albumen....	5.70	Albumen....	5.86
Globules....	9.95	Globules....	9.70
Salts, &c....	1.10	Salts, &c....	1.20

Blood extracted from the large vessels of five newly-born puppies:—

Water.....	78.00
Fibrine.....	0.20
Albumen.....	4.60
Globules.....	16.50
Salts, &c....	0.70

The fatty matters, oxide of iron, and calcareous salts, were not isolated in these experiments. It would certainly be worth our while to renew these researches at the present day, when the principles of analysis are so much better fixed. The conclusions of M. Denis must be received with some reserve, by reason of the uncertainty attending his proceedings.

4. The blood is richer in solid materials in individuals who are well fed, than in those who are but indifferently or badly nourished; this principle requires no demonstration.

The foregoing analyses give us the composition of the venous blood in man. But not so with regard to the arterial blood: the opportunities of analysing arterial blood in the human being occurring too rarely for any fixed data to have been formed. We are, therefore, compelled to content ourselves with the information derived from animals on this head. Arterial blood differs especially from venous blood in its colour; beyond that, arterial and venous blood appear to have great resemblance to each other. The odour of arterial blood seems always stronger than that of venous blood. Also, the temperature of arterial blood appears to be a little more elevated than that of venous blood; the difference may, according to Scudamore, Krimer, Davy, and Schmeucker, range from 1° to 1.5 or 2° C.; while, on the other hand, according to some observers, as Coleman, Martini, and Cooper, the temperature of the arterial is lower than that of the venous blood, as though the evaporation determined by the air on the surface of the lung, and the heat which the air itself absorbs in traversing that organ, had more than balanced the results arising from the combustion of the blood. Boissier and Hamberger have found arterial blood denser than venous blood. In general, arterial blood has a greater tendency to coagulate than venous blood.

Let us now inquire in what way the materials of the two kinds of blood vary. Arterial and venous blood can scarcely differ in any very great degree from one another. In fact, if we take the venous blood in the pulmonary artery, and the arterial blood in the pulmonary vein, these two liquids can have hardly any variation. If the venous blood loses some water by its contact with the air, which becomes saturated with vapour in the lung, this evaporation is but trivial in amount. And, again, some of the phenomena of combustion which take place in the blood, being accomplished in the lung itself, the venous blood thereby loses a portion of its solid materials, at the same time that it parts with its water—a fact which thus tends to restore its balance. Still, if the theory of Lagrange be correct,—that the respiration gives rise in the lung to a simple phenomenon of evaporation,—the arterial blood ought to contain rather more solid materials than the venous blood.

By taking the precaution of drawing but a moderate quantity of blood from some strong animal, and furthermore, by collecting both kinds at the same moment, we shall find that the proportion of water is sensibly greater in venous than in arterial blood.

	Arterial blood.		Venous blood.		Observers.
	Fixed matters.	Water.	Fixed matters.	Water.	
Sheep	17.07	82.93	16.36	83.04	Dumas and Prevost.
Cat.	17.65	82.35	17.41	82.59	
Cat.	19.02	79.98	19.08	80.92	
Sheep	17.07	82.93	16.36	83.04	Lecanu.
Horse	21.62	78.38	20.43	79.57	
Horse	21.45	78.55	19.55	80.45	

According to M. Denis, the two species of blood have the same obvious composition; whilst, according to M. Letellier, the proportions are variable. He has obtained in the sheep:—

	Arterial blood.		Venous blood.	
	Fixed matters.	Water.	Fixed matters.	Water.
1st experiment	17.57	82.43	18.26	81.74
2nd experiment	14.57	85.43	13.81	86.19
3rd experiment	19.12	80.88	17.72	82.28

These contradictory results may, perhaps, be explained by an observation made by M. Schulze, who found that the arterial blood of the horse, while fasting, contained but 15.5 per cent. of fixed matters, whilst the venous blood held 18.6 per cent. A horse, after a full feed, on the contrary, furnished 22.9 per cent. of fixed matters in the arterial blood, and 19.5 only in the venous blood.

MM. Hering and Franz Simon found less fixed matters in arterial than in venous blood. Thus, according to M. Hering, the blood of the following herbivora contains:—

	Ox.		Sheep.		Horse.	
	Arterial.	Venous.	Arterial.	Venous.	Arterial.	Venous.
Water	78.89	79.49	85.02	84.12	83.95	83.16
Fibrine	0.76	0.66	0.61	0.53	0.46	0.69
Albumen	2.61	2.58	3.36	2.64	2.20	2.67
Globules	16.47	17.04	10.61	12.44	13.09	13.11

Extractive matters and salts... 0.26 0.23 0.40 0.27 0.30 0.37

M. F. Simon performed two very perfect analyses. The following are his results.

Horse labouring under *malleus humilis*:—

	Blood of carotid.	Blood of jugular.
Water.....	760.08	757.35
Fibrine.....	11.20	11.35
Fatty matters..	1.86	2.29
Albumen.....	78.88	85.88
Globules.....	136.15	128.70
Hematosine....	4.87	5.17

Extractive matters and salts... 6.96 9.16

Lean horse killed on account of old age:—

	Blood of carotid.	Blood of jugular.
Water.....	789.39	786.50
Fibrine.....	6.05	5.08
Fatty matters..	1.32	1.46
Albumen.....	113.10	113.35
Globules.....	76.40	78.04
Hematosine....	3.64	3.95

Almost all authors are agreed on one point: namely, that there is more fibrine in arterial than in venous blood. Prevost, Denis, Lecanu, and myself have found arterial blood richer in globules. M. Letellier considers the globules variable in the two kinds of blood. He found in the sheep:—

	Arterial blood.			Venous blood.		
	1st.	2nd.	3d.	1st.	2nd.	3d.
Water	824.3	854.3	808.8	811.4	861.9	822.8
Globules	97.3	72.0	121.2	113.0	63.5	106.1
Albumen	78.4	73.7	70.0	75.6	74.6	71.1

Extractive matters and salts... 10.00 10.00 10.00 10.00 10.00 10.00

THEATRE OF ST. GEORGE'S HOSPITAL.

LECTURE ON THE CANTHARIDES.

By Sir B. BRODIE, Bart. M.D.

ON STIMULATING APPLICATIONS.—1847.

GENTLEMEN,—In the early period of its history, the medical art was exercised by those whose pretensions to be medical practitioners were founded on their supposed knowledge of certain remedies

or nostrums, which, at first, they used very much at haphazard; but, after a time, when medical schools were established, the method of study became changed, and, from attending to the effect of these nostrums, men began to investigate the nature, progress, and character of disease, thinking that this procedure would better enable them to select proper remedies. The first of these methods is, as you know, called the empirical; the second, the scientific; from the latter the greatest and most beneficial results have followed, both in medicine and surgery. But although by the empirical method a man may kill when he ought to cure, and although there is no doubt that the scientific method of investigation has such superior advantages, we are not to despise the other; and it has occurred to me that, in the modern art, we do not pay sufficient attention to the nature and properties of the remedies we employ. I think that much valuable knowledge might be communicated by considering the various remedies in the course of our lectures, not only with reference to their chemical qualities, but the particular cases to which they were applicable in practice.

With this view I shall now call your attention, first, to that class of remedies which you will recognise as local stimulating applications, commonly called counter-irritants. I prefer the former designation, because counter-irritation is only an effect produced. A number of remedies are included in this class, as blisters, liniments, stimulating ointments, setons, issues, &c. We will commence with blisters. A blister is a remedy producing vesication, causing inflammation of the cutis, and a secretion of serum from its surface, which is deposited in little bags, as it were, between the cutis and cuticle. A great number of applications have the power of producing this effect, though there may be some varieties in the progress of their action: some are immediate in their effect, and some act more slowly.

It is sometimes important to obtain immediate vesication; and Sir Anthony Carlisle employed, for this purpose, scalding-hot water, and, no doubt, this is a most certain way of producing a blister; the manner of applying it was this:—A rag dipped into the water is applied immediately to the skin, it seals, and, consequently, produces a blister. There is an objection to this, as it is not free from pain, and often produces great constitutional disturbance. Another form, which some prefer, is proposed by a physician of eminence, which is an application of strong liquid ammonia, not that of the Pharmacopœia, but one much stronger—as much ammonia as can be dissolved in water; a piece of lint is dipped in this solution, and in a few minutes produces vesication: the pain accompanying its action is not so great as that of boiling water, there not being that burning heat. A blister also may be caused by the application of acetic acid—the pure acid, will act in a few minutes; but this is rendered more efficient by a combination with cantharides, a saturated solution in strong acetic acid. The acid in the Pharmacopœia is not good for this purpose, it is not strong enough; it should be stronger, so as to extract the vesicating principle which exists in the cantharides. After all, there is nothing better than the common blister plaster. Various have been the agents that have at different times been proposed; they have come and gone, but it has stood its ground, and proved itself, I venture to say, better than all the rest. It makes a larger blister, draws off more liquid, and its effects are more permanent than any of the others. It is not necessary for me to describe the mode of applying it; it must be put on with sufficient pressure, so as to produce contact with the skin, but not so tightly as to prevent vesication taking place. It is sometimes attended with inconveniences, and I must tell you the means of obviating them. By absorption of the cantharides it is apt to excite the kidneys, cause retention of urine, &c. There is a very simple way of preventing this: put a piece of oiled paper between the skin and blister; this will not affect the vesication, it will rise just as well, but it will prevent the absorption of the cantharides. It has been proposed to cover the surface of the blister with camphor, but I do not think this is better than the



oiled paper. I have heard it said, that these things interposed between the skin and blister, make it less efficacious; but I think this is not altogether correct, for I remember that the first time I tried the plan, on an elderly woman in this hospital, she declared it gave her much more pain than any she had on before; but, though I do not believe this, I cannot think it the less useful for the paper.

After we have removed the blister we generally dress the parts with the ceratum cetacei, or some other simple dressing; you will find the following very useful. It is made of prepared chalk, oil, and rose water. Those portions of the ointment which adhere to the blistered surface can easily be removed. This is also a very good application:—

*Rx.* Zinci oxydi, pulv. calamin., partes æquales; cerati simplicis, q.s. misce. ft. ceratum.

You will find, also, that the lapis calamin. is a very good application; but I must tell you that it is very difficult to procure it genuine, because it is scarce, and they will give you some stuff made red with oxide of iron.

Blisters rise in some cases much more readily than in others; in some persons it is difficult to produce a blister; occasionally the fault is in the quality of the plaster, and your remedy under these circumstances is very easy; but the cause may often be found in the thickness of the cuticle, for a thick cuticle prevents vesication. If cold lotions have been used successively, or liniments and stimulating applications, the skin is then hardened, and blisters will not rise. If the skin be thin the vesication is very rapid. When you apply a blister to the body, you should consider the constitution of your patient; in young children, you must proceed with caution, it should be removed much earlier than in the case of an adult; that is, take it off in two or three hours; if left on eight or ten hours it will ulcerate, and most probably slough. I have known a child lose its life from the too long application of a blister. In the adult, some parts rise quicker than in others; and in people of the same age a blister will rise sooner on a certain part, in one case, than on the like part in another case. Also, be careful in applying a blister where the skin is thin. Never apply, for instance, a blister on the scrotum; the skin is very thin here. I saw a man nearly die from such an application for hydrocele. One was admitted into this hospital, in a high state of fever, and with delirium. On an examination, all these symptoms were found to arise from a blister on the scrotum. You will generally heal the blister immediately; some, however, advocate keeping it open, as by dressing its surface with stimulating ointments, as the ceratum cantharidis, or the ceratum sabinæ of the Pharmacopœia. I am not prone to this plan; I think it much better to apply a succession of blisters. The open blister is very painful, distresses the patient much, and disturbs the constitution; but, if you resolve upon keeping it open, the ceratum cantharidis is decidedly better for dressing than the ceratum sabinæ; it is more injurious to use the latter than the former; for savin, as you know, when taken internally, is a poison, and scarcely less injurious when applied to the cutis, for it produces fever and many other distressing symptoms by the absorption of the poison; it may even produce inflammation of the intestines. It is this medicine which is given by quacks and unprincipled people to produce abortion. I have opened several women who have evidently died from the effects of this poison.

We come now to consider the uses of blisters. Upon the application of a blister the inflammation leaves one part and goes to another; as, for instance, in a case of chronic gout of the foot: the person has gout in the stomach; upon the latter commencing the former begins to disappear, in fact, it leaves the foot and goes to the stomach; as, also, in gonorrhœal inflammation of the urethra, the testes begin to show signs of inflammation. When this is set up the inflammation leaves the urethra, going from one to the other.

The blister plaster applied to the skin produces inflammation of that part, it draws the blood from the neighbouring textures, and thus relieves the original seat of inflammation. If there be a seton in the arm, and you apply a blister near, you dry

the seton up; and this proves what I have said. This is the principle of applying blisters as counter-irritants. Supposing you have inflammation of a synovial membrane, which you wish to allay in this manner, you would apply the blister in the neighbourhood; and which, drawing the fluid from those parts, will cure it. But, in judging of the propriety of this course, you must have regard to the state to which the inflammation has advanced. Never apply a blister at the beginning of inflammation—never in its acute stage; for instance, if there be acute inflammation of the synovial membrane of the knee, the application of a blister would do it much harm, and add considerably to the inflammation, as the two might join; wait, rather, till the acute stage is past. If it be acute inflammation of the pleura, and you apply a blister, you do harm, but when that has subsided you would do good.

Another question to be considered is, where should you apply the blister? Would you put it on the inflamed part itself? No; if the inflammation be in the knee, do not apply your blister on the knee itself, but near it; the inflammation descends to the subcutaneous structure, even to the adipose tissue. Dr. Harrison examined a case in which a blister had been applied to the side when the person was living, and he actually found a mark, corresponding to the blister, on the pleura; the inflammation had descended till it reached that part. Much, then, will depend on whether the person be corpulent, or whether there be much adipose substance interposing between the blister and important organs beneath. If the person be fat, you may apply the blister on the knee; if thin, you must not apply it on the knee itself. If there be inflammation of the brain, a blister on the crown of the head will greatly aggravate the disease; it should be applied on the neck. I need not enumerate the cases in which these applications will be useful, as you will receive the necessary instruction in that subject in the ordinary course of lectures on inflammation of the knee, inflammation of the brain after injuries of the head, and on inflammation of the joints. In these, and in many other cases, they will be of great assistance.

It is a great mistake to suppose that blisters are only useful in relieving inflammation; they are useful in many other ways: for instance, you have a case where the knee-joint is full of fluid, there is no inflammation, but it is what used to be called hydrops articuli—a collection of serous fluid in the capsular ligament, or bursæ mucosæ: you apply a blister to the part, by the time this is healed you find half the fluid gone; you blister again, and, when that is healed, you find all the fluid has disappeared. How is this? The blister stimulates the absorbents, and there is no doubt that the absorbents take the fluid away, whether they are the small veins or the lymphatics. I need not enter into that question here; it excites the absorbents, whatever they be, and the fluid disappears; it does not pass off by the skin, but as I have stated. But they act beneficially not only in those cases where serum is effused, but also where inflammation has produced hard lymph. Mr. Syme, of Edinburgh, has proposed the application of blisters to old ulcers of the leg, where the surrounding parts are indurated. Now, what causes this induration? Why, hard lymph in the cellular membrane around the ulcer. He puts a large blister all round the ulcer, and he says, after one or two applications the ulcers heal. The first effect is greater inflammation of the leg, but this subsides, and is followed by absorption of the lymph. This is the effect of sticking-plaster applied in the same manner; for, as the hard lymph is absorbed, the ulcer heals.

It has been proposed to apply blisters with the view of producing absorption of abscesses. I have blistered them, and kept them open, but depend upon it that pus is never absorbed, though serum is; and, although there have been statements made of the absorption of pus under these circumstances, I do not believe them. Then I have heard of abscesses being absorbed by blisters. I do not believe that pus is ever absorbed so as to be got rid of by blister. And were they abscesses? I have seen cases of bubo from which fluid has been absorbed, but, when I have opened such, I have found that which was supposed to be pus was not pus at all, but

serum. A patient was admitted into this hospital with swelling over the sternum, which was supposed to be an abscess, and it looked like an abscess; but when I opened it with a lancet serum alone came out; by-and-by the same individual had another similar swelling of another part, which I did not open, but it was removed by blisters, for I had no doubt of the case; but, if I had not opened the first, I should very likely have instanced it as the example of the absorption of an abscess.

I stated before that the inflammation caused by a blister is not confined to the surface, but descends to the subcutaneous textures. Now, here is an example. You have a case of tumour in the female breast, caused by the dilatation of one of the lactiferous tubes. When you puncture this sero-cystic tumour you let out a large quantity of serum with lymph floating in it.

This tumour may be dispersed by the application of stimulating medicines to the skin. The inflammation, as I believe, descends to the membrane of which the tumour is composed, and causes absorption, the process appearing to be the same as in the cure for hydrocele; the injection causes inflammation of the tunica vaginalis, which is followed by absorption; but this may happen without injection; an accident produces inflammation, and the patient is cured.

Another case, in which the application of a blister is beneficial, is in fracture of the leg, where the union is slow. A blister quickly produces union. I tried it in a case of fracture of the tibia, and it did, I think, hasten union. But you must know that it will not answer where the bone is deep-seated, as the femur, but only where the bone is subcutaneous. It facilitates union by producing inflammation, not only of the skin, but deeper parts. There are some applications which answer the purposes of blisters, but which do not produce vesication. Every practitioner has some stimulating liniment which he uses, and, perhaps the liniment of one is as good as the favourite of another.

The liniments of the Pharmacopœia are, first the linimentum saponis comp., which I believe is worth nothing as a stimulant. It is good where much friction is required, but the pulvis amyli is equally good, and, besides, it does not diminish the friction, and produces no chafing. The linimentum camphoræ comp. is a very good preparation; the linimentum ammoniæ fortius is exceedingly good. There is a quack composition, called essence of mustard, but which I believe to be nothing but turpentine coloured; but it is a very excellent remedy in rheumatism, it inflames the skin to a certain extent without producing vesication; it acts not only locally, but constitutionally, not merely on the skin, for the urine smells of it strongly. Turpentine is good internally in chronic rheumatism; and, therefore, this has a double effect.

I should also mention that the absorption of the turpentine is often succeeded by an erythematous eruption, like that produced by balsum of copaiba, at other times it produces an eruption like eczema. This does not take place immediately, but after long use; it is attended with a little fever and disturbance of the patient, but this will by-and-by subside.

I will mention an application which I have much used, and you will find it a strong and useful liniment:—

*Rx.* Ol. olivæ ʒjss., acidi sulph. ʒss. m. et adde ol. terebinth. ʒss.

This makes a black liniment; rub it on the skin with a piece of lint twice a day. It is excellent for affections of the joints. This is occasionally followed by an eruption, but very seldom. You must not neglect to tell the person who prepares it, to mix the oil and acid well together first, and then add the turpentine, for, if the acid and turpentine be mixed together alone, the whole will take fire. The tartar emetic ointment has excellent stimulant properties, as good as any in common use; it is made thus:—

*Rx.* Ant. potassiæ tart. ʒij., cerati cetacei ʒj. m. To be rubbed in for one or two days till the part is red; after a time you have an eruption of pimples; these you must be very careful not to rub, or you will produce mischief. I knew a man who lost his knee by this application being rubbed on



the pustules produced by the former application of the ointment. A woman, too, nearly lost her ankle from the same cause. When the pustules have entirely disappeared, then you may reapply the ointment. Sometimes, after this ointment has been used for some time, a very curious effect follows: the patient is seized with a shivering, and a slight attack of fever, and then follows an eruption all over the body—a pustular eruption—just like that produced by rubbing the ointment on the skin; this eruption is entirely ecchymatous.

I remember one of the students here inoculating himself with the matter from one of these pustules, but no effect followed.

Many of the liniments which I have mentioned are useful in chronic inflammation; in that of the synovial membrane of the knee-joint you may often apply them with advantage; they are not, however, to be used indiscriminately, because, in scrofulous inflammation of the knee, and in ulceration of the cartilages, they do harm instead of good; it is only in cases of chronic inflammation of the synovial membrane of joints that they do good. If you use them in chronic inflammation of the joints, you must always take care not to make violent friction, which will only tend to aggravate the inflammation; but use just so much as is necessary to make the application penetrate the surface of the cuticle. These stimulating liniments will sometimes answer the purposes of blisters in reducing the inflammation of other parts. Thus, the sero-cystic tumour of the breast, which I said became inflamed from the application of the blister, the inflammation extending down to the cyst, will yield to the following liniment also spirits of camphor, Zijss.; and the liquor plumbi acetatis, Zijss. A piece of flannel dipped in this is put on, and afterwards it brings on inflammation, but not only of the skin but also deeper in the breast; upon the abatement of the inflammation the liniment is again applied, and so on till the disease is cured.

A strong tincture of iodine is a very good thing to use as a liniment on many occasions; you may apply it with a camel-hair pencil. The tincture of the Pharmacopoeia is not strong enough. Put 3j. to 3j. of rectified spirits, and paint the part daily. When there is much inflammation produced, the application should be omitted. The tincture of iodine is, I suspect, absorbed into the system. You know how readily the iodine is absorbed when injected into the tunica vaginalis, as it is tasted in the mouth in a few minutes afterwards. I applied it to the back of a young lady, who tasted it soon after; now, in this case we have good evidence of absorption, for she had never heard of such a remedy, nor of this peculiarity; but she had a very thin cuticle.

In chronic inflammation of the synovial membrane of the knee, I generally apply the tincture of iodine to the knee very freely every day. I have seen it produce inflammation of the cellular membrane of the thigh, and then of the whole body.

We will take up Setons and Maxa at our next meeting.

## ORIGINAL CONTRIBUTIONS.

### ON SOME FORMS OF ETHER INHALERS.

By ALFRED SMEE, F.R.S.,

Surgeon to the Royal General Dispensary, and Lecturer on Surgery, &c.

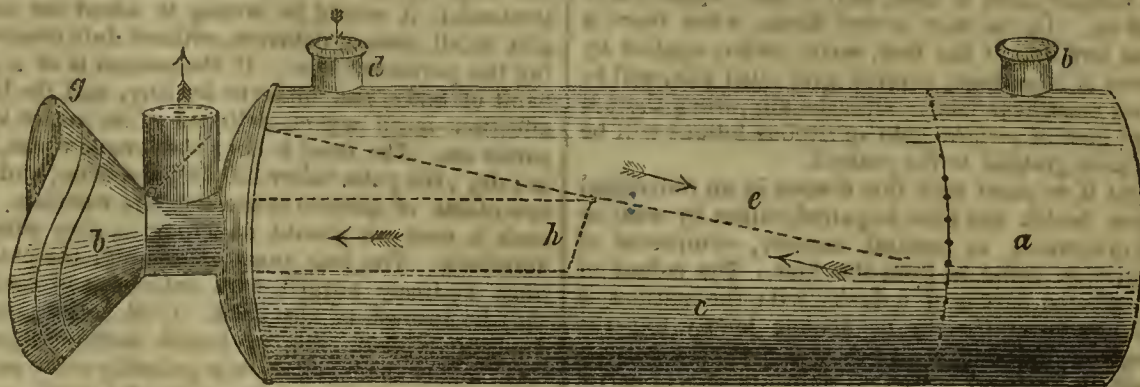
Since the discovery of the inhalation of ether has been communicated to the world, every surgeon has been endeavouring to ascertain that form of apparatus which causes it to act most energetically upon the system, and which can be used with the greatest convenience to the patient.

The first instrument which I contrived is in the form of a large pipe filled with sponge. This forms a handsome and convenient apparatus, but is disadvantageous, inasmuch as the sponge in the bowl is soon apt to become dry.

The next idea arising from this was to make a pipe with the bowl between the aperture and the patient's mouth, and emanating from that again. I was led to use a bowl containing a tube extending to the bottom to admit the air. Such an instrument would consist of a glass vessel having two apertures; one, opening over the top, is much larger than the other, and admits a tube ground into it, and extending to within an inch of the bottom, like that of my ammonia inhaler. Into this tube a stopper is ground, to prevent escape of ether when the instrument is not in use. The second aperture has a brass cap fixed to it, which is attached to a flexible tube, to which is appended the ordinary inhaling and exhaling valve. This forms a valuable apparatus, and,

the instrument-makers tell me, is much liked by surgeons.

The two forms of inhalers only possess the merit of convenience, as they do not produce the action quicker than other contrivances. I have now to describe a device whereby the rapidity of action is much enhanced by the use of heat to assist the vaporization of the ether. This, to my mind, forms by far the most convenient form of apparatus, besides being one in which the ether produces the most rapid effects upon the body. The mouthpiece should be so arranged that, when in use, the ether should come in contact with the hot chamber, which may be easily accomplished by setting it more obliquely than the case of the subjoined figure:—



DESCRIPTION OF FIGURE.

- a. Hot-water chamber.
- b. Aperture with screw.
- c. Ether chamber.
- d. Aperture to admit air and ether, with a screw, to be employed when the inhaler is not in use.
- e. Diaphragm.
- f. Mouthpiece.
- g. Expiratory valve.
- h. Inspiratory valve.

The arrows show the direction of the current of air when the instrument is in use. Variations are sometimes made in this instrument: the body may be made to unscrew. It is a very good plan to have a screw at the mouthpiece, to enable a nut to be applied to prevent the escape of ether when the inhaler is not required. A piece of flexible tube may be attached between the mouthpiece and barrel, though I myself do not much fancy the arrangement, and greatly prefer the entire inhaler to constitute one firm mass.

### OBSERVATIONS ON SOME OF THE MORE IMPORTANT POINTS CONNECTED WITH ERYSIPELAS, AND ITS TREATMENT.

By HENRY SMITH, M.R.C.S.,

Late House-Surgeon to King's College Hospital.

(Concluded from page 264.)

I shall now proceed to consider the treatment of erysipelas, and shall conclude with some remarks on the means of preventing its spread.

Although so much has been written upon the treatment of this disease, and cases are so frequently presenting themselves to most practitioners in this city, and in the other large towns of this country, we have no fixed rules laid down to guide us. If any one takes the trouble to look through the writings of physicians and surgeons on this point, which have been accumulating since the time of Heberden, Fordyce, and Wells, he will be particularly struck with the contrarieties of opinion there expressed, and the opposite plans of treatment recommended. The reason for this diversity of opinion we shall, perhaps, find to depend upon circumstances; among which I may mention, that the disease has undoubtedly put on different characters at different periods, as other diseases have done, and that medical men have not by any means agreed upon the true nature and essence of the disorder. In addition, I am fully convinced that the disease has been treated too much as erysipelas, without a due regard to symptoms.

For how is it possible, without these circumstances, that such an entire opposition of opinion should have existed on such an important subject; important not only among ourselves, as medical practitioners, but the public, who are likely to be the victims of this disease, and who have a right to require that their medical attendants should employ that mode of treatment which is based upon sound reasoning and experience?

When we come to treat any disease, we should first consider what is its real nature, and what are the circumstances under which it has arisen. If it is an acute disease of any of the important organs of the body, brought on by ordinary causes, and attacking a frame hitherto healthy, we know how to proceed—we may carry on our treatment boldly and fearlessly, according to rules laid down, with success. But, on the other hand, if we find a patient labouring under an affection of the same organ, and can trace that affection to the action of some deleterious poison in the system, the symptoms will be of a different character; and we shall be obliged to turn out of the beaten track, and advance more cautiously with our remedies. I cannot do better than add, as a preface to my remarks on the treatment of this disease, the words of that acute observer Dr. Graves:—"When" (says he) "you are called to treat a case of erysipelas, you should recollect that it is a disease capable of exhibiting a great variety of forms, amenable to no fixed line of treatment, and requiring for its management all the sagacity and skill of an accomplished practitioner." In idiopathic erysipelas of the head and face, the treatment will vary greatly, according to circumstances. In many cases the attack is so mild that we have little to do. When there is not much constitutional disturbance, and the skin alone is affected, the patient may be kept in bed; a purgative to unload the bowels, and some simple saline medicine, may be prescribed. This will generally be sufficient; but the majority of cases are more severe; in such there is great febrile disturbance, nausea, pain at the epigastrium, and great redness and swelling of the face and head, which sometimes rapidly increases to an enormous extent. When called to such a case, we must not remain idle—we must ascertain the business and habits of the individual, and act accordingly. If he has been hitherto in good health, and the pain in the head is severe and the pulse full, some would employ blood-letting; but that remedy should be dispensed with if possible (particularly in London), as it will be followed by a greater state of depression. A large dose of calomel and jalap may be given with benefit, it will generally bring away a large quantity of dark-coloured faeces; afterwards a saline draught, containing from fifteen to twenty minims of antimonial wine, may be repeated every



three or four hours, and the case must be carefully watched. This treatment may be continued whilst the fever is high; but if the pulse becomes more rapid and feeble, and the tongue, which is generally covered with a yellowish brown fur, become dry, and there be other evidences of exhaustion, five grains of carbonate of ammonia should be added to the draught. This will generally be serviceable, and relieve the depression. If further stimuli be required, as evidenced by *quickness* of the pulse and a disturbance of the sensorial functions, two or three ounces of wine may be given, two or three times a day. The bowels should be at the same time attended to, but active purging must not be allowed. The best local application in the simpler cases is flour, as it is easily applied and kept on. In the more severe forms, when there is great swelling of the face, warm water, applied by means of linen rags, covered with oiled silk, will be found most beneficial. Occasionally, when there is great heat of surface, cold spirituous lotions will be the most grateful to the patient.

But if we meet with this disease in an individual whose health has been impaired, either by want or intemperance, or mental anxiety, symptoms of depression come on from the first. The colour of the affected part is of a dusky red; the patient is dull, and requires to be spoken loudly to; the tongue is foul, and soon becomes dry; the pulse is rapid, feeble, and irritable; delirium sets in early, and nervous symptoms predominate. In such a case we must give stimuli immediately, and with no sparing hand. We may be sure that we are going on the right track, if such symptoms exist, and very many of the cases treated at our hospitals, and amongst the poor, present this form. Wine must be given in liberal quantities: this is, perhaps, the best form of stimulus generally, but, if the patient has been in the habit of taking porter or gin, we must allow him the same. He will take it readily, and it will do him more good. At the same time we must give him more solid stimuli, such as arrowroot, beef-tea, and jelly. These should be given in small quantities, mixed with his favourite liquor. In many of these cases the stomach is very irritable and refuses everything; we must counteract this morbid state, and a very useful combination will be found in small doses of laudanum and aromatic spirit of ammonia, three minims of the former to ten or fifteen of the latter in an ounce of water, or in the effervescing draught. I have often seen this of great use in stopping the vomiting, and was in the habit of prescribing it when this symptom occurred in the patients of King's College Hospital. If delirium be a prominent symptom, and there is sleeplessness and nervous tremor of the hands, a larger amount of stimuli will be required; and it will be a question whether opium should be given: if the patient gets no sleep, but passes his nights in delirium, if there does not appear to be any great congestion within the head, and with these, nervous symptoms are apparent, opium may be given with propriety. It undoubtedly must be given with caution, and not without due discrimination. From half a grain to one grain of muriate of morphia will remove the delirium, procure sleep, and refresh the patient, and in many cases save his life. I have seen this preparation, given in a large dose, remove delirium when the patient has been constantly jumping out of bed, and very difficult to manage.

As delirium is an important symptom in this disease, as in many others, and requires great care in its treatment, it would be well to consider it more especially. Generally speaking, we do not find it appear until two or three days after the commencement of the disease. We must be careful not to mistake this symptom, and, merely because it is delirium, put it down to the wrong cause. There is no doubt that many persons are too liable to ascribe it to active congestion, or inflammation of the brain, when none such exists, and treat it accordingly. As an instance, I will quote a case which happened to a physician of my own acquaintance. He was attending a patient with erysipelas; delirium came on; my friend, who, I suppose, was rather of an antiphlogistic turn, pulled out a lancet and bled the poor wretch;

death ensued almost directly from the effects of the bleeding. A pint of wine would probably have saved the patient. We must recollect, as I have before stated, that the whole mass of blood is poisoned; that this poisoned fluid is perverting the functions of the brain, and producing this delirium. The heart also, although in most cases more irritable, is weaker and sends a less quantity of blood to the brain. The object, then, in the treatment of this symptom is threefold: to alter the composition of the blood; to increase the action but not the irritability of the heart; and to allay undue excitability of the brain. The first and second points we shall gain by giving stimulants, and the third by the judicious exhibition of opiates. Notwithstanding the majority of such cases require stimulating treatment, it would be wrong to adopt the same plan in all cases of delirium, without duly considering the particular case. If the patient is of a full habit of body, and hitherto healthy, and the local affection more severe, delirium of an active kind comes on. The head is hot; the tongue white, but not dry; the pulse below 100, full and firm; and the symptoms of general depression are wanting. In such a case we should do wrong to give wine or ammonia. The hair must be cut off; the patient must be freely purged with calomel, and leeches may be applied to the head. Cold lotions, assiduously applied, will be found useful. Opiates must not be given, as there is probably some active congestion or inflammation within the head.

*Coma* is another symptom to be considered in this form of the disease; it frequently occurs, and is frequently the cause of death. It is a bad symptom, and requires strong measures. Probably some effusion has taken place in the lateral ventricles, or beneath the membranes. If the coma be profound, we must trust more to external than internal remedies. A blister between the shoulders, and mustard poultices to the thighs, will sometimes succeed, but the most efficient remedy is turpentine, either in the form of enema, or given by the mouth. In every case of coma, no matter from what cause, whether from the presence of worms in the bowels, from the poison of typhus, or from a knock on the head, turpentine enemata are most beneficial. In cases where coma of an obstinate character, together with other threatening symptoms, come on during an attack of erysipelas, Dr. Copland strongly recommends the internal use of turpentine. A very interesting case is mentioned by him in his "Dictionary of Medicine," where a young woman was evidently rescued from death by this remedy. If the erysipelas of the head is the consequence of some injury, the disease will, in most cases, be more severe, and require more active interference, as there is a greater likelihood of suppuration and sloughing, and, in addition, we have to deal with the injury, more or less severe, which has caused the affection; for it frequently supervenes upon severe scalp wounds or compound fractures of the skull; and the danger is greater in consequence of the patient having undergone some depletion, and having been kept very low.

We must treat the disease in the same manner as we should treat the idiopathic variety; but the chief thing that we have to do is to look out for suppuration under the integuments. When there is matter it will be indicated by an increase in the symptoms, and by a soft puffy feel; an incision should be made, and this will be found to relieve any urgent symptoms which may result from the confinement of the matter. If there is merely great redness and tension of the part, an incision should be made, or, if the patient should object to this proceeding, leeches may be applied with great benefit.

These traumatic cases sometimes prove rapidly fatal, from the circumstances I have just mentioned; I have seen a woman fall a victim to the disease within forty-eight hours. She was a drunkard, and in the sixth month of pregnancy. Erysipelas appeared around a scalp-wound; the disease put on a very severe form; she miscarried in the height of it, and died almost instantly from the shock, without losing an ounce of blood. I was summoned to her, but before I could arrive she died.

I have now considered the treatment of the

disease when it affects the head, and shall proceed to the treatment of those forms of erysipelas which attack the other parts of the body; but, before I do so, I beg to state that the treatment just recommended is that which I have seen followed, and which I have myself adopted, chiefly amongst hospital patients, and amongst the poor of this city; so that it will probably not suit all classes in all parts of the country. In no one disease is it more necessary to investigate the previous condition and habits of the patient; for, if this caution be neglected, symptoms will arise which will perplex us, and for which we shall not be able to account. Cases will come under our notice which will require a line of treatment totally different from one another. To show how necessary these precautions are, I cannot do better than refer the reader to the *Lancet* of September 12th, 1846, where he will find some remarks on the treatment of erysipelas by Dr. William Munk, who is evidently a physician of discernment. He has there brought forward three cases of the disease, totally differing from each other in their symptoms, and requiring quite an opposite treatment. It is evident that each patient owed his life to the judicious and rational treatment which was pursued by Dr. Munk and his colleagues.

When erysipelas attacks the trunk or extremities, there is always a much greater disposition in the disease to spread, and, in consequence, a considerable part of the body becomes involved. There is also a greater tendency to disorganization of the tissues; and in most cases which attack the extremities this will take place, unless measures are taken to prevent it. The surgeon, therefore, has ample scope to apply his skill, than if the disease were situated on the head; although the disease, on whatever part of the body it is situated, requires much the same general treatment, yet, as it assumes such various and serious aspects, the application of those methods which call for a correct knowledge of anatomy, and of the very first principles of surgery, will be required.

In simple erysipelas of the trunk or of an extremity, where the skin alone appears to be affected, and the constitutional signs are not at all severe, the same means may be used as above recommended. Some simple application may be applied to the part, and the bowels and skin should be attended to; these mild attacks are frequently seen after injuries. But, when the disease puts on a more severe character, more active means must be used.

Without involving the cellular tissue to a great extent, the inflammation may nevertheless run on to a considerable height, and the constitutional disturbance be severe. If it is the lower extremity which is affected, the whole of the limb from the toes to the knee is red and swollen; it becomes much larger than the other, the skin is tense, and the patient is complaining of great pain. The tongue is covered with a yellowish-white fur, and the secretions are disordered. In such a case the patient should be well purged with calomel and jalap; and, if there is much febrile excitement, a saline draught, with some antimonial in it, may be given every three or four hours. The limb should be raised higher than the rest of the body, and should be thoroughly surrounded with flannels wrung out in hot water, and covered over with oiled silk; these should be frequently changed. We should not forget the position of the limb, as this is an essential point, and very often overlooked by the attendant.

By these means well applied, we shall find that the inflammation will often quickly subside; but, perhaps, the patient has had his system lowered by some depressing cause: he is a drunkard, or he has been picked up in the streets with the disease upon him. When this is the case, the state of things is different: the colour of the affected part is dusky, the inflammation has a great tendency to spread, and the patient complains of languor; his tongue is brown; the pulse is weak, and ranges from 100 to 130. This state of things requires stimulants: ammonia and wine should be given; and broth, beef-tea, and jelly should be allowed. To prevent the inflammation from spreading, we fortunately have a remedy in the nitrate of silver; the limb should be surrounded with a line; and as it is a point which has been



much disputed, as to whether the lunar caustic is really serviceable in stopping the inflammation, I will willingly add my humble testimony to its good effect. I have lately been in the habit of applying it to nearly every case of erysipelas attacking the extremities; I have had a great many opportunities of doing so, and I have come to the conclusion, that it is a most useful remedy; and that the surgeon who neglects its use rejects one of the means which are serviceable in rescuing his patient from death or a protracted illness. I have seldom seen it fail to do some good, when it is *applied properly and in proper cases*. If proper cases are not selected, or if it is carelessly applied, we shall be disappointed. I believe it is only in those cases unattended with suppuration or sloughing that it will be right to apply it; and the solid stick, dipped in water, should be well rubbed upon the *border of the inflamed surface itself*, to the extent of an inch or more; and also beyond the line of redness. It should be so applied as to cause an eschar around the part; and it will be necessary, in order to produce this, to press it strongly on the part for two or three minutes.

Some parties, who fancy it fails, just draw the stick around the part at a distance from the inflamed surface, and only make a blackish ring; this is of very little use, and will only bring discredit on the remedy. The limb, or inflammation wherever it is, must be quite surrounded; and, if there are inflamed lymphatics running up the limb, the caustic should be applied along over them.

When the caustic is applied in this way, and in proper cases, we shall be rarely disappointed in its effect: for, although it may fail in some cases to arrest the disease totally, and the inflammation may extend beyond the line, it will not extend far. I have particularly noticed this fact in several cases, in which the remedy has apparently failed, although in reality it has not failed to *localize* the inflammation.

Baron Larrey was in the habit of employing a much more heroic remedy on the same principle. He applied the actual cautery around the diseased surface, so as to make a slough; and there is no doubt that it proved highly successful. An English surgeon, who has practised on the Continent, tells me that he has seen it used in cases of erysipelas with great benefit; but Englishmen do not like their bodies to be burned with red-hot iron.

Various topical remedies have been recommended for the purpose of allaying the inflammation and soothing the part; amongst these are lotions, warm and cold, medicated with various stimulating and sedative drugs; mercurial ointment has also been strongly recommended, I believe first by Velpeau. That which I have usually seen applied is simple warm water. If it be well applied, it generally proves most grateful to a patient, and reduces the inflammation in a short time; and I cannot see the same objection in the use of warm fomentations as Mr. Nunneley does. He says—"As warmth and moisture increase the action in a part, and relax it as well as augment the quantity of blood in it, in the early stages of erysipelas they are decidedly injurious, by encouraging the disposition to effusion; and at a latter period, from their tendency to keep up suppuration, they should be avoided." It is very true that warmth increases the action in a part, or rather, to speak more accurately, determines more blood to the part in a healthy state; but I much question whether it acts in the same manner when the part is highly inflamed. It may be true in theory, but I think not in practice, for how is it that we so often see the good effects of warm fomentations? On the next day, after their application, we find the limb much diminished in size, the redness abated, and the pain much allayed. Therefore, I do not think that warm fomentations are *decidedly injurious*, but, on the contrary, are highly serviceable. As to cold lotions, I have not frequently seen them used, except when the scalp is affected; and I think I never applied them myself but once, and this one trial was sufficient to cause me to reject them. A woman, about forty, had a large patch of erysipelatous inflammation around an ulcer on the leg. The part was very hot and painful, and she had tried various ointments, but

none had relieved her; I ordered a cold lotion to be applied: in 48 hours all the inflammation had disappeared, and she congratulated herself on the speedy relief, and thanked me greatly. On the second day from this, she was seized with most violent erysipelas of the head and face; she suffered severely, but eventually recovered. I attributed this to metastasis, as the inflammation in the leg so suddenly disappeared, and that in the head and face developed itself so quickly. She was not, as far as I could judge, exposed to any contagion, and I was attending her in her own house.

Mercurial ointment I have never seen applied for this disease; it appears to me to be a nasty application, and the benefit which has resulted, where it has been used, seems to have been derived more from the specific action of mercury on the system than from the ointment itself.

My much respected friend, Dr. Davies, of Hertford, in his book on "Pathology and Surgery," which contains some interesting and useful facts, strongly recommends tincture of iodine to be painted over the part. He has related some instances where it was eminently successful, and where so speedy alleviation of the symptoms took place that it could not be attributed to any other cause. Although I have not seen this application used much in cases of erysipelas, I have seen great benefit from its use in other forms of inflammation. The strength of the tincture Dr. Davies recommends is  $\text{ʒij}$ . of iodine to  $\text{ʒj}$ . of spirit.

I have spoken of these local applications, whilst considering the less serious forms of erysipelas, as it is chiefly in these cases that they are of the most service.

Collections of matter, as I before stated in a former paper, are liable to form after the severity of the disease has been reduced; these should be opened, and great care should be taken to look after and prevent others from forming. A bandage, evenly applied, will be useful for the latter purpose.

When the disease puts on a more severe form, and the cellular tissue and other parts are affected, more care and skill, on the part of the surgeon, are required. When the cellular tissue is much affected, there is a great liability to the formation of large quantities of matter, and the parts become quickly involved in sloughing, and great disorganization of the tissues takes place. In conjunction with these local symptoms there is great constitutional distress. It is the object of the surgeon to prevent this mischief. If we are called early to a case of phlegmonous erysipelas, we may do much good. The part, perhaps, is enormously swollen, the patient is crying out for some relief, the constitutional disturbance is severe, and evidently caused and aggravated by the local affection. The best plan is to follow that recommended by Mr. Copland Hutchinson, and now so much adopted, namely, that of making incisions. This may be done before there is any matter, as the object of these incisions is not only to let out matter when formed, but to prevent its formation, if possible. Therefore, if the swelling is great, and the part is puffy, pits slightly on pressure, and gives a sensation of resistance to the finger, we may make an incision through the skin and cellular tissue; free bleeding will take place, and will greatly relieve the pain and tension. The part may be afterwards well fomented with hot water, and, if possible, it should be raised higher than the rest of the body. The cellular tissue, in such a case as I have just mentioned, when cut into will be found hard, brawny, and infiltrated with fluid. In this state of things the incisions will be very useful. A quantity of blood and other fluids will be evacuated, the puffiness and swelling will disappear, and the best results will follow. It may be necessary only to make incisions once; but, sometimes, the inflammation, when severe, runs on and involves some other part, or great swelling and tension may be found to be present at the part where incisions were made; it may be necessary at the next visit, then, if we find such is the case, to repeat the incisions, and we should not allow the feelings of the patient to prevent us from following this course, as it may be the means of saving life or limb.

At the same time we must attend to the general symptoms; the bowels should be kept open, and if

there is much fever, with a full pulse and white tongue, saline medicines with antimonials may be given; but if, as is generally the case, symptoms of depression come on soon, we must give stimuli, and in some cases a large quantity will be necessary; if there is sleeplessness and delirium, tincture of opium or muriate of morphia should be given.

In some severe cases of phlegmonous erysipelas we may, by early and active measures, prevent the formation of matter, but suppuration in various parts will take place early; sometimes the matter is superficial, sometimes deep; it should be evacuated as soon as it is discovered, otherwise it will burrow, and ugly sores and sinuses will be the result.

I will quote briefly a case of the kind I have been considering, which was under my care; it will illustrate the good effect of early and frequent incisions, and of the use of stimuli and opiates. I was sent for some time ago to see a middle-aged man, of a pretty good constitution, but a free drinker. I found him lying in bed, with the whole of the left lower extremity more or less involved in erysipelatous inflammation; the leg, especially at the lower part, was much swollen; the parts about the foot and ankle were of a livid red colour, puffy, slightly cedematous, and hard to the touch. The lymphatics along the thigh were much swollen; he was in great agony, and, when I entered his room, he earnestly besought me to relieve his pain. His countenance was anxious; the pulse was rapid and irritable; he had had no sleep, and he altogether appeared in a most deplorable condition. He had been attended by a medical man who evidently did not understand the nature of the case, as he merely applied some lotions to the part.

I immediately made two or three long and deep incisions in the most swollen and inflamed part; the cellular tissue was found to be hard and much infiltrated. Free bleeding was allowed to go on, and the limb was wrapped in hot flannels; ammonia, and a quart of porter was allowed him, and a fourth of a grain of morphia was prescribed.

On the next morning I found him tossing about in the bed in a state of delirium, and in an exhausted condition; he had not slept; he would not allow the nurse or his wife to give him his opiate, and they could do nothing with him. Seeing that, if he could get no sleep, he must die, I gave him myself half a grain of morphia. This had the desired effect; he slept for some time, and in a few hours he had become rational. I, however, repeated the morphia at night. On the next day his general symptoms were better, but there was great swelling and puffiness about the ankle, and it was evident that further incisions were required; I, therefore, made two or three over the most swollen parts. On the following day there was again great tension and swelling, and the colour of the affected part was dark and unhealthy. I again used the knife two or three times, and found the cellular tissue much in the same state, but there was no matter. As he was weak he was ordered brandy and beer, and an opiate at night. The swelling in the upper part of the limb much subsided, but yet the disease seemed determined to stick to the ankle and foot; I was obliged to make incisions into those parts two or three times afterwards; these had the desired effect; no sloughing either of skin or cellular tissue took place; he remained in a weak state for several days, but by allowing him plenty of brandy and beer he recovered, and before the end of a month was able to come and see me at my own residence.

I have never attended a case which gave me so much satisfaction as this; for, combined with a severe local disorder, there were the most complicated constitutional symptoms. It is evident that his life was saved by an active application of those general and local means which medical and surgical art has afforded us.

In the more severe forms of this disease, when suppuration has already taken place to a great extent, and the tissues have become involved in sloughing, it will be necessary to show great care and watchfulness.

Sometimes cases come under our notice, in the hospitals, where really nothing can be hoped for. I have seen the whole of the lower extremity, in one



case, a complete bag, as it were, of pus; and, in another, I have seen it almost one black and disorganized heap of tissue. We may alleviate symptoms, but such cases will generally prove fatal. In less serious cases, although much mischief is already done, we may be of great service. If there be a soft boggy feeling to the finger, in any part implicated, we must immediately make a free incision; this will allow any matter or disorganized tissue to escape. Sometimes matter will be found diffused under the integuments of a great part of a limb, and the irritation and exhaustion it occasions will be excessive. By making a free incision we relieve the part, and thus lessen the general disturbance. It is necessary sometimes to carry the knife deeply, as the matter may burrow to a great extent, and be confined under the fasciæ, or even the muscles. I have seen it necessary to carry the knife quite through the substance of a large muscle, before the matter could be liberated. After these incisions we may first use warm fomentations, and subsequently a common linseed poultice; or, if there is much sloughing, the yeast poultice, or one containing the tincture of myrrh, will be found useful in hastening the separation of the dead parts.

We must at the same time pay attention to the general symptoms; there is, in these cases, great prostration of the whole system: the pulse is rapid and feeble, the tongue brown and dry, and delirium of a low character sets in. In such cases we must support the patient with stimuli, chiefly in the shape of wine; a large quantity will frequently be required, to prevent the patient from sinking. If the stomach is irritable, the effervescing draught, containing twenty minims of sp. amm. aromat., with three minims of tinct. opii, may be given; or, if vomiting continues, creosote may be administered.

But, notwithstanding our utmost care, we shall often lose a patient when attacked with severe phlegmonous erysipelas. The constitution will not be able to rally against the profuse discharges and the great sloughing of the tissues, which will take place, in spite of all we can do. When the case is about to terminate fatally, the patient gradually becomes more and more exhausted; he does not benefit from the stimuli that are given him; he lies in a state of stupor, and does not appear to suffer pain; the pulse ranges from 120 to 140, and is very feeble; the respirations become more rapid; the colour of the affected part becomes dusky; nervous tremors of the hands are noticed, and the complexion changes to a jaundiced hue; this latter is an important symptom, first pointed out to me by Mr. Fergusson, and, when it happens in the advanced stage of erysipelas, we may be almost certain that we are to lose our patient. In addition to these symptoms, there may be uncontrollable diarrhoea, tympanitic distention of the abdomen, and retention of urine, and the patient sinks from simple exhaustion of the vital powers.

I will say a few words respecting incisions: various forms of making them have been recommended. Mr. Lawrence, Mr. Earle, and Mr. Guthrie, have advised and practised long incisions, the mere mention of which, without the experience, would be sufficient, I should think, to frighten most persons. I have not seen them employed, nor does it appear to me to be prudent to use such heroic means, as an enormous quantity of blood must necessarily be lost when such incisions are made and the patient, who is quite in an opposite condition to that which demands blood-letting, will be much lowered by the proceeding. Any one who reads Mr. Lawrence's cases cannot fail to be convinced that the death of some of his patients was owing to the large quantity of blood lost from such wounds.

"One, two, or more incisions, from two to three inches in length, in such situations, as to give most ready egress to the matter, both at the time and afterwards, should be made," (a) says one of the most distinguished practical surgeons of the day. These will not give so much pain, nor will there be so much danger of losing a large quantity of blood, as if the long incisions were used.

We often hear the phrase, of making bold incisions, used, and surgeons, in their treatises, recommend such; but we must be cautious with the knife when we are plunging it into those parts which are in the neighbourhood of large arteries, otherwise we shall have troublesome hemorrhage. A surgeon to a public institution in London told me, that in making one of these bold incisions he wounded the anterior tibial artery. I once laid open the internal saphenous vein, and had most severe hemorrhage to deal with. On another occasion, whilst cutting deeply between the muscles on the back of the arm, to get at some matter, I opened the posterior interosseous artery, as I suppose, and was with difficulty able to stop the hemorrhage, and not before the patient had lost a considerable quantity of blood.

It remains for me to make a few remarks on the complications of erysipelas, which require a somewhat varied treatment.

There is one form to which I have made allusion, namely, that in which there is a tendency for the inflammation to run rapidly from one part of the body to another, and to attack nearly the whole of it in succession. These are generally severe cases, and require much care in their treatment. I have lately seen two very remarkable cases of the kind. One of them was under the care of Dr. Todd, in the hospital; she was a middle-aged woman. The other patient was a child about four years of age, in whom the disease was first excited by the making of an issue on the back. In both of these cases the inflammation gradually extended nearly all over the body; and in both of them stimulants to a considerable amount were found necessary. They lay for some weeks in a questionable condition, but finally recovered. When there is a great tendency in the disease to spread and wander from one part to the other, depletion will not be useful. There is great weakness of the constitutional powers, and it will be necessary to support them. M. Lisfranc has made the remark, "that against erratic erysipelas, blood-letting is employed with less success than any other species." If bronchitis or pneumonia come on during an attack, the danger will be much aggravated. I have before stated that I have seen a patient carried off in a few hours after symptoms of pneumonia were discovered. It is our duty, therefore, to catch the first signs of the lung affection, as, in consequence of the depression of the patient, they may not become apparent to a careless observer. I believe the bronchial tubes are affected more frequently than the substance of the lung. In the treatment of this complication, we must recollect upon what the inflammation depends, that it is not a healthy inflammation, but is caused by the same poison which has produced the disease of the skin.

We must be cautious, then, in depleting a patient. If the symptoms are urgent, if there be pain and the cough harassing, and the pulse is at all sharp, we may give the tartar emetic in doses of the sixth or quarter of a grain, with a drachm of syrup of poppies, and repeat it every four or six hours. If there be much depression, and the patient has already suffered much from the original attack, we may combine the tartar emetic with carbonate ammonia; this appears a curious mixture, as each remedy has an opposite effect; but I have frequently used it, and have very good reason to speak well of it. In cases where there is much depression, the tartar emetic will not be borne in such, in conjunction with free stimuli, the wine of ipecacuanha and tincture or extract of hemlock, may be used with benefit. Counter-irritation, in the shape of blisters and sinapisms to the chest, will be found very serviceable; they act beneficially in two ways: they reduce the local inflammation and congestion, and, if there be much depression of the powers of life, they act as general stimuli. They should not be kept on too long. Some object to blisters as likely to produce further erysipelas; but, when it already exists, I have never seen them do any harm.

I intended to have given at length some cases which occurred to me of erysipelatous inflammation of the lung, but space will not allow me to do so.

To prevent erysipelas from spreading, I believe means may be successfully employed. I am speaking more particularly with regard to public insti-

tutions. If a case is brought in, it should be placed in a well-ventilated ward, if possible; if the weather is at all close, the windows should be kept constantly thrown open; if there are any patients with wounds or sores, no communication should be allowed between the parties: this should be strictly enforced, as patients in a ward are frequently doing little offices for one another, and are thus brought into dangerous contact. If an operation has been performed, and erysipelas is about, the patient should be placed as far as possible from the diseased parties. Above all, there are two precautions which I believe will prove most useful. There should not be a single sponge allowed in the place; I am sure the use of sponges is a fertile cause of the disease spreading; although every patient is supposed to keep his own sponge, in consequence of carelessness, on his part or on that of the nurse, two or three persons use the same: frequently, in the hurry of a fresh accident or operation, a sponge is called for, and the first which is at hand is snatched up by a careless nurse, and thus the disease is spread. I would therefore most earnestly recommend that sponges should be laid aside; and that tow should be used instead. During the last months of my residence at King's College Hospital, I, with the sanction of the surgeons, introduced tow into the wards, and I am sure with benefit. In the next place, strict injunctions should be given to the nurses, never to touch the wound of a patient, or employ any dressings, without having previously washed their hands; many of them are too lazy and dirty to do so, without being well looked after. The dresser and surgeons should also be particular in this respect. I can speak from my own experience, that in the hurry of hospital duty this important office may be at times forgotten. The dressings which are removed from a patient should be at once taken out of the ward, and not be allowed, as I have often seen, to remain in a pan by the bedside while fresh ones are applied.

These few remarks on the precautions necessary to be used will not, I hope, appear out of place. I am quite certain that much mischief may be prevented by proper care, and that the surgeon may be often spared the great mortification of seeing the skill which he has been carefully and anxiously employing for the benefit of his patient, baffled by an unlooked-for accident, in the shape of the serious disease I have been considering.

109, Great Russell-street, Bloomsbury-square.

January 25, 1847.

## ON SOME POINTS CONNECTED WITH DIABETES.

By M. BOUCHARDAT.

Translated for the MEDICAL TIMES by ALFRED MARKWICK, Esq., Surgeon to the Western German Dispensary, and formerly Externe to the Venereal Hospital, Paris, &c.

(Continued from p. 303.)

### ON THE RELATION EXISTING BETWEEN THE FEUCULENT MATTERS INGESTED, AND THE GLUCOSE CONTAINED IN THE URINE OF PATIENTS AFFECTED WITH DIABETES MELITUS.

It was by ascertaining, by means of a balance, the quantity of each article of food taken by these patients in twenty-four hours—by measuring the amount of urine voided in the same space of time, and by determining the proportion of glucose contained in this urine—that I established in my first memoir the relation between the proportion of feuculent matter ingested by diabetic patients, and the glucose contained in their urine.

It may be as well to preface the following remarks with the statements I made in my first memoir relative to this question, which, in my opinion, is of the greatest importance in the history of saccharine diabetes:—

"A circumstance which has been already alluded to by several authors, and which I have constantly remarked, is, that when the diabetic patients are at the height of their malady, their appetite is truly extraordinary, and their ardent thirst is always in a direct ratio with the quantity of food they take. Another circumstance which has not been suffi-



ciently insisted on, is the great desire shown by diabetics either for sugar or for bread, or the other feculent aliments. I have noticed this predisposition in all those in whom the disease was very severe, and it was by reflecting on this subject that I discovered the following theory of diabetism:—

"The presence of starch sugar in diabetic urine is owing to the transformation of the fecula into starch sugar in the same manner that we may effect it in our laboratories.

"There exists in the economy of diabetic patients a principle which has on starch a very similar action to that of diastase.

"Experiments have proved to me that yeast, gluten, albumen, and fibrine, in certain modified conditions, which I have elsewhere alluded to (*Recueil des Mémoires du Concours de la Société de Pharmacie sur la Fermentation Acide*), might have on starch, are effects exactly similar to that of diastase; these principles meet with the starch in the stomachs of diabetic patients.

"I have constantly remarked, in all the diabetic persons I have seen, that the quantity of sugar contained in the urine was always in a direct ratio with that of the bread or the feculent or saccharine food they had taken in the twenty-four hours. If the amount of this saccharine or feculent food be diminished, the proportion of urine excreted, and of sugar contained in it, will diminish in a corresponding degree.

"By suppressing almost entirely the use of this kind of food, the urine gradually becomes natural, both in quantity and composition.

"The thirst of diabetic patients is in a direct ratio with the saccharine or feculent food they take. I have noticed that for an amount of food equal to one kilogramme of fecula (rather more than two pounds English) they generally drink about seven kilogrammes of water, and void nearly eight of urine.

"If the saccharine or feculent aliment be diminished or suppressed, the thirst immediately takes a proportionate retrograde step. One of the patients, whose case I have detailed, was much surprised to find that his excessive thirst had entirely left him since he had abandoned saccharine and feculent food, and had confined himself to roast beef and ham; the popular theory regarding the substances that are looked upon as giving rise to thirst being thus but too evidently at fault; and, in order to fully convince him of this fact, it was necessary for him to take, during one day, the same quantity he had been accustomed to of saccharine or feculent food, in order to find the ardent thirst and the constant desire to make water reappear a few hours after, which for three years had made his life miserable.

"The excessive thirst with which diabetic patients are tormented meets with a very satisfactory explanation in the facts we are acquainted with relative to the action of diastase on starch. In order that the transformation of the starch into sugar may be complete, the fecula must be dissolved in about seven times its weight of water. A phenomenon similar to this is observed in diabetic patients: in order that the starch may be transformed into sugar, which is a necessary result of the disease, seven parts of water are requisite, and until this quantity has been taken they are tormented by a thirst which it is impossible for them to resist.

"The theory I have just exposed is based on so many facts and on so many experiments, varied in every possible way, that I consider the two following propositions as the exact expression of the truth:—

"1. In diabetic patients the thirst is in a direct ratio with the quantity of saccharine or feculent food they take.

"2. The proportion of glucose contained in the urine is in constant relation with the proportion of feculent or saccharine food."

The preceding propositions are deduced from facts too numerous for it to be necessary to dwell longer on this subject. I therefore refer my readers to the cases to be afterwards detailed. But, before entering on another question, I will direct their attention to the apparent exceptions I have mentioned in my previous

writings, or that I have since met with, and fix the limits in which experience is in conformity with theory. The propositions are verified to the fullest extent in patients who are severely affected, and who consume a large proportion of feculent food; but in those patients who only take a very small quantity of feculent or saccharine food in proportion to the total amount of aliment, in the twenty-four hours, it may so happen, and this is easily accounted for, that the sugar disappears in the urine, or that its quantity is less than that indicated by the feculent matters ingested. The patients approach the state of health, and begin to usefully employ a variable proportion of feculent food.

Here is another apparent exception, but which admits of as easy an explanation: those diabetic patients who have been submitted for several days to a regimen from which feculent matters are excluded, and in whom a diminution of the thirst and of the quantity and density of the urine has been observed successively to take place, may be suddenly restored to the use of feculent food without the diabetic symptoms immediately appearing so formidable. The economy appears to have lost the habit of saccharifying, and the bread in part escapes the saccharine transformation for a greater or less length of time. The change, however, which separates the animal from the feculent regimen is not noticed by those observers who do not pay the strictest attention; but, if the urine be daily carefully analysed, we shall not fail to see the crystallizable sugar reappear, and the proportion of feculent matter ingested, and of glucose voided in the urine, soon become restored.

May the immediate principles of meat or other non-saccharine or non-feculent food give rise, under the influence of diabetic diastase, to the formation of glucose?—The direct experiments I have instituted, in order to answer this question, have all given a negative result, and the observations I have made on patients have been in conformity with the experiments of the laboratory. The suppression of feculent substances has been almost always accompanied by a disappearance of the glucose from the urine. Still, occasionally, some exceptions have presented themselves to my notice, which ought to command a little reserve. A patient, among others submitted during fourteen days to abstinence from feculent food, voided at the end of that time urine containing traces of glucose; but we may observe that, in this exceptional case, the quantity of urine had diminished from twelve quarts to two, while the proportion of its solid contents had become reduced to one-tenth of what it was at first.

Two reasons may be given to explain the presence of glucose in the urine of patients submitted to an exclusive regimen:—1. That meat and non-feculent food may likewise furnish glucose. We know that gelatine becomes transformed, like fecula, under the influence of boiling and diluted sulphuric acid; but it is not, as I have proved, transformed under the influence of diabetic diastase. 2. The patients, notwithstanding the most careful watching, often succeed in procuring feculent food, for which they frequently greatly crave. I willingly confine myself to this last supposition, for the purpose of explaining the presence of saccharine matter in the urine of those patients who were considered as restricted to a rigidly exclusive diet; in this case the exception, which was of the greatest importance, immediately becomes destroyed.

#### ON THE SUBSTITUTION OF FATTY AND ALCOHOLIC MATTERS FOR THE FECULENT AND SACCHARINE.

Some persons have had but a very imperfect idea of my writings on Glucosuria; some physicians, and among them those who ought to have the best appreciated my researches, have made it appear that my mode of treatment consisted principally in the adoption of an exclusively animal diet. Nothing is less exact, and I trust in the course of this memoir to clearly prove it.

The point on which I have principally insisted, and which indeed ought first to excite attention, is the relation between the feculent matters ingested, and the glucose voided in the urine; it is the urgent necessity for diabetic patients to suppress, or at least to greatly diminish, the amount of fecu-

lent food; but what is of equal practical importance, is the necessity for replacing the hurtful feculent aliment by other kinds of food of the same physiological order.

Feculent and saccharine matters belong to that class of substances which are called the aliments of respiration; it is therefore indispensable to select from this same class, food capable of replacing the feculents which the diabetic patient cannot make use of, owing to certain physiological conditions that I shall allude to by-and-by. The alcoholic drinks and fatty matters are the substances I have had recourse to, and the employment of which I have always recommended.

It appears from some experiments related in the memoir on the Digestion of Alcoholic Substances, by M. Sandras and myself, and from other unpublished labours, that when alcohol, glucose, or dextrine, and oils, are simultaneously introduced into the stomach, the alcohol is the first to disappear, then the glucose or the dextrine, and lastly the fatty matter ingested. Feculents, therefore, furnish a food which remains longer in the blood than the alcoholics, and not so long as fatty bodies. When feculents cannot be usefully employed in nutrition, they cannot be entirely replaced by alcoholics, owing to their useful effect being too rapidly exhausted; neither can the preference be given exclusively to fatty bodies, inasmuch as in man their destruction is too slow, and the quantity the lacteals are capable of taking up in the intestines is not sufficient to entirely replace the feculent matters. From these facts it follows that it is necessary to combine, in proper proportions, fat food with alcoholic drinks, in order to supply the place left vacant by the feculents. Still it must not be imagined, and I wish to strongly impress this on the mind, that these substances ought to be exclusively employed in the alimentation of patients labouring under diabetes mellitus; they ought merely to be used as a substitute for feculent food, and that is all, and should be combined in reasonable proportion with the reparatory aliment contained in the protein compounds, such as meat, eggs, &c.

I have only now to state the proportion and the nature of the alcoholic drinks, and of the fat food, which may be ordered for the twenty-four hours for an adult affected with glucosuria.

As alcoholic drinks I have always given the preference to the red wines of Bordeaux and Burgundy, of good growth and year, and at least four years of age. The stomach bears these wines better in rather large proportion than any other I have employed, and the principles associated with the alcohol in them are not without their utility; I have always found it better to keep to one wine, than to vary it. The exclusive employment of a good *ordinaire* wine to which one is accustomed has appeared to me to be of great service.

The quantity of wine I have generally considered necessary has varied, according to the patient, from one to two quarts in the twenty-four hours; some have been able to exceed this amount; not only did they experience no inconvenience, but they found their strength rapidly increase. The mean quantity for men in the twenty-four hours is six pints. Admitting that the wines just mentioned contain ten per cent. of alcohol (which is according to the analysis made of them), we shall then have 150 grammes of alcohol consumed in the twenty-four hours. This quantity appears to me sufficient to replace the useful effect of feculents, especially if fatty bodies are also used in the diet.

Rollo, whose works on diabetes I have always mentioned in such terms of praise as they deserve, recommended, by a remarkable instinct of truth, fatty matters. In this, however, in my opinion, he had but one fault, namely, in being too exclusive, —a fault which his imitators have still further increased. What good can be derived from the almost exclusive use of bacon, and particularly of rancid fat? On the contrary, we must carefully avoid causing a feeling of loathing, and treat with caution the susceptibilities of the digestive organs. Fatty substances are only useful when they are given in proper quantities, and appropriately combined with tempting food.

#### ON DIASTASE IN GLUCOSURIA.

Cases of diabetes mellitus occasionally present



themselves in which emetics prove useful, and I have taken advantage of all the opportunities I have had for the purpose of examining the matters vomited by patients affected with this disease. Before going farther I may state that I have always found starch sugar when the emetic had been given an hour after a feculent meal. Fermentation, Frommherz's test, and the examination with M. Biot's apparatus, left no doubt in my mind respecting it.

The plan I adopted for obtaining diastase from patients labouring under diabetes mellitus was as follows:—Ipecacuanha was administered fasting, and the vomiting promoted by a few glasses of warm water. The matters vomited were generally liquid, transparent, and colourless; sometimes they were ropy. They were filtered, and the filtered liquid, as limpid as water, mixed with twenty-five times its weight of rectified alcohol, which immediately rendered it opaque. In a short time a deposit took place of light white flocculi. These were separated from the alcoholic liquors, and redissolved in water, and again thrown down by a great excess of alcohol. This substance was collected on a filter, then, while still moist, placed in thin layers on plates of glass, and dried in a dry atmosphere at the temperature of 45°; afterwards powdered and enclosed in a well-corked bottle. By this process, which is the same as that proposed by M. Payen for extracting diastase from barley, we obtain a white, solid, amorphous matter, insoluble in alcohol, and soluble in water and diluted alcohol. The aqueous solution is inodorous, and almost insipid; it has no action on litmus-paper, is not precipitated by the subacetate of lead; left to itself it becomes acid, and loses its specific action still more rapidly than ordinary diastase: in a dry state it keeps longer.

The diastase of diabetic patients, like that of germinated barley, has no action on albumen, gluten, cane sugar, inulin, or well-organized cellulose.

When fresh prepared, and in the state to be presently mentioned, one part of diastase is sufficient to completely liquefy 2,000 parts of starch; an action exactly similar to that of diastase from barley, inasmuch as M. Payen effected the solution of 20,000 parts of fecula by one of diastase.

The solvent powers of these substances procured from such different sources are exactly alike. For instance, when potato starch, diluted with ten times its weight of water, is treated with 0.005 of glucosic diastase, and the mixture gradually heated over a water-bath, the reaction takes place, particularly at 158°. The starch, therefore, is dissolved as it becomes hydrated, and the mixture has not for a moment the consistence of paste. The solution of iodine clearly proved the conversion of the starch. With fecula converted into a paste, the liquefaction is, as it were, immediate at the temperature of 158° when the mixture is agitated. Such are entirely the properties attributed by M. Payen to diastase from barley. All the other properties are identical.

Like the common diastase, that extracted from the stomach of diabetic patients loses all its action when exposed in solution to a temperature of 212°. Its solvent power is also arrested by those substances which arrest that of the other diastase. (a)

The diastase obtained from diabetic patients is composed of oxygen, hydrogen, carbon, and nitrogen; but the small quantity I had at my disposition did not enable me to ascertain its exact composition. I was not able to discover, in the diastase extracted from the stomach of a diabetic patient, a single property that was not possessed by the substance obtained by M. Payen from germinated barley. I consider them, therefore, as identical.

It remains for me to mention the precautions by means of which I have obtained diastase in a state of purity from the stomachs of glucosuric patients.

In several cases I could not procure a diastase so active as that from germinated barley, in consequence of not being able to collect the vomited matters myself, and to separate them immediately, as it is necessary to do. On the 11th of May, 1844, however, a man, strongly affected with diabetes, entered the Hotel Dieu, under the care of M.

Honoré, who, two days after his arrival, and before submitting him to any treatment, ordered an emetic dose of powdered ipecacuanha to be taken in the morning fasting. A few minutes afterwards the patient swallowed two glasses of warm water, and shortly vomited an equal quantity of a limpid, slightly viscid liquid, which was immediately thrown upon a filter, and the filtered liquid received in rectified alcohol.

The diastase obtained from the first vomiting was perfectly pure.

Does there exist in the gastric juice secreted in the stomach of man or of animals, in health, a substance performing the part of diastase?—Some persons, both in Italy and in Germany, who have lately written on diabetes, admit the existence of this substance in normal gastric juice; but I have nowhere seen any experiments recorded by them which confirm this opinion. It is by induction, or by interpreting the researches of various observers, that they arrive at their conclusions. For my own part, I have very carefully examined the action of normal gastric juice on entire fecula, on starch jelly, and on bread, but I have never been able to discover the slightest specific solvent action, although I have never neglected to avail myself of the most favourable conditions as to temperature. All that I have observed relative to this subject has been exactly in accordance with the experiments published in M. Blondlot's work on Digestion, and in our memoir on the Digestion of Feculents. (a) I have also attempted to extract gastric juice, by applying the procedures already described to a product analogous to diabetic diastase; and have in every instance obtained a matter possessing no solvent action at all, or only a very weak one.

Therefore, in my opinion, the existence in the gastric juice of a substance capable of effecting the transformation of starch into glucose in the stomach of a diabetic patient—a transformation that takes place under the influence of this special matter, which is nothing else than diastase—is a pathological and not a physiological fact.

#### ON THE BLOOD OF DIABETIC PATIENTS.

The most interesting question relative to the blood of persons labouring under diabetes is with respect to its containing glucose.

It has been answered, both in the affirmative and the negative, by equally eminent chemists; and some persons have not only answered it affirmatively, but have evidently so exaggerated the quantity, that their opinion must appear in favour of those who deny the presence of saccharine matter.

The arguments and experiments detailed in my first memoir (b) have sufficiently set this question at rest. I may, however, mention one very important circumstance, which has led into error those persons who have been engaged in searching for sugar in the blood of diabetic patients, and have not found it.

Generally speaking, physicians, who send the blood to chemists to be analysed, wait twenty-four hours to allow the clot to form, in order to ascertain its physical properties; during this time the glucose existing in the blood may entirely disappear and become converted into lactic acid. (c) I have verified the influence of this circumstance, which has not been insisted on by authors. I divided diabetic blood into two portions: the one which was analysed immediately yielded traces of glucose, while the other which was not examined until twenty-four hours afterwards gave no indication of it whatever.

Cases of diabetes requiring venesection are, in my opinion, very rare; still this affection is some-

(a) Vide p. 301 *et seq.*

(b) See the "Annuaire de Thérapeutique" for 1841, by M. Bouchardat; and p. 25 *et seq.* of Bell's "Essay on Diabetes," translated by Alfred Markwick.

(c) [Hence the diminution in the alkaline condition of the serum of the blood under these circumstances: for it has been proved by M. Bouchardat, that if the serum is examined shortly after the blood has been drawn from the vein, it will be found to require the same proportion of hydrochloric acid as that from a healthy individual, to neutralize it.—TRANS.]

times met with in persons of a plethoric habit who are troubled with cerebral congestions; bleeding is then indicated. On these occasions I have always made a point of examining the blood. The plan I adopt for detecting the presence of sugar is as follows:—I receive the blood at its exit from the vein into a graduated glass vessel, containing four times as much rectified alcohol as the quantity of blood to be drawn. When the solid matters of the blood are precipitated, I decant the supernatant liquor, express the deposit, and filter; I then remove the alcohol by distillation, finish the evaporation of the liquid over a water-bath, and take up the residue with distilled water. The solution is afterwards filtered and evaporated to the consistence of syrup.

Notwithstanding the precautions I took, I never could extract the glucose from the blood in a crystallized form. I examined the aqueous liquid, from which the colour had been removed with M. Biot's apparatus, in order to ascertain its rotatory power, but could never detect it (a). We must not conclude from these two negative characters the absence of glucose. In my last research I proved its existence in the following manner:—

The patient in this case was forty-two years of age, plethoric, and troubled with congestion. He had eaten, three hours previously, about 200 grammes of bread and the same quantity of boiled beef. He was bled to the extent of 250 grammes, and half of the blood treated as above described. The syrupy residue was redissolved in 20 grammes of distilled water, and 10 grammes of the solution mixed with Frommherz's test; there was considerable reduction, and the presence of a large proportion of glucose evident. I added a small quantity of yeast to the remaining 10 grammes. Fermentation immediately took place, and the fermented liquid, on being distilled twenty-four hours afterwards, yielded traces of alcohol. No such result was obtained from the blood of a man not affected with diabetes.

#### ON THE COMPOSITION OF THE BLOOD IN DIABETES.

In my "Annuaire de Thérapeutique" for 1841 I gave the following as the result of my analysis of diabetic blood:—

Albumen .....	62.54
Fibrine .....	1.95
Globules .....	118.23
Salts, extractive matters, and fatty matters	8.52
Water ....	808.76

This composition, however, is not so general as I imagined; it may be true for the exhausted patients that are met with in hospitals; but it is not exact for those diabetics who are strong and have a sufficient animal and alcoholic diet. With the exception of containing traces of glucose, their blood does not differ from that of a healthy individual, as is proved by the last analysis I made of it, and of which the following are the results:—

Albumen .....	67.12
Fibrine .....	2.83
Globules .....	127.22
Salts, extractive matters, fatty matters, and glucose .....	11.31
Water .....	791.00

These results approach very nearly those furnished by the analysis of venous blood of the adult healthy man.

(To be continued.)

## PROGRESS OF MEDICAL SCIENCE.

### ACADEMY OF SCIENCES.

Meeting of Jan. 17; M. BRONGNIART in the Chair.

INTERMITTENT FEVER.—Dr. Cazenave, of Bordeaux, forwards the following interesting case:—Dr. B., aged seventy, was operated for hydrocele, in the year 1820, and in June, 1843, was affected

(a) This might have been owing either to the excessively minute proportion of glucose, or the simultaneous presence of a protein substance having a contrary rotation.

(a) See *Medical Times*, vol. xiv., p. 31 *et seq.*



with acute and violent symptoms of inflammation of the bladder; from that period forward the passage of urine became more and more difficult, and the use of bougies was unnecessary. The urethra was not the seat of any stricture; the bladder was healthy and the prostate sound; but the neck of the bladder was irritable and painful. In June, 1845, a tertian fever appeared, and lasted one week; during the febrile paroxysms the excretion of urine was perfect and natural; the retention returning immediately afterwards. The same phenomena were observed in another attack of intermittent fever, which the patient was affected with during the month of August.

**NERVES OF SEROUS MEMBRANES.**—Dr. Pappenheim adds another chapter to his debate with Dr. Bourguery on this subject. M. Bourguery asserts that no membranes are so abundantly furnished with nerves as the serous; while Dr. Pappenheim holds that no membranes contain so few. Which is to be believed?

**VESICO-VAGINAL FISTULA.—THREE CASES OF CURE BY OPERATION, BY DR. JOBERT.**

A young woman, aged twenty-two, was confined during September, 1845, after a tedious labour, which lasted eight days; cephalotomy was necessary, and the patient, during the three last days, did not excrete urine from the bladder. One week after accouchement, an eschar suddenly escaped from the vagina, together with a large quantity of urine; from that day forward the patient's health gradually improved, and in a few weeks she was perfectly well, with the exception of the local infirmity to which a loss of substance of the vagina and bladder had subjected her. She came to Paris to seek surgical assistance, and entered the Hôpital Cochin, where she was placed under the care of Dr. Michan, who, during three months, repeatedly cauterized the perforation with the actual cautery and with nitrate of silver, but unsuccessfully. Under these circumstances she was admitted into the Hôpital St. Louis, and placed in the wards of Dr. Jobert. On exploration of the vagina, a fistula was found to occupy its anterior wall, at four centimètres from the meatus urinaris, and slightly to the left of the mesial line. The longitudinal extent of the perforation was equal to seven centimètres, and its breadth to one centimètre. A large portion of the fundus vesicæ was interested in the loss of substance, its edges were in a permanent state of tension, and the general health of the patient remained unimpaired. On the 2nd of July, 1846, M. Jobert performed on her the following operation:—The speculum having been introduced, the os uteri was forcibly brought down, with hooks, in such a manner as to expose the fistula, the edges of which were excised, and united by several sutures. On the right wall of the vagina an incision of the mucous membrane was then made, by which the tension of the morbid edges of the aperture was destroyed. The speculum and hooks were withdrawn, and an injection of cold water made into the vagina. A cylinder of lint was placed in the parts, and a catheter passed into the urethra. Three weeks afterwards the wounds were completely healed, with very trifling diminution of the diameter of the vagina, and the patient regained full command over the excretion of urine.

The second case was that of a woman, aged twenty-four, who, in her first labour, required the assistance of the forceps; and in her second was delivered, after much suffering, and after the performance of cephalotomy. Six days after confinement the urine suddenly passed through the vagina, and a fistula was established. On the 23rd of December, 1845, the patient was operated on in the same manner as that related in the preceding case, and in seven days cicatrization was complete. The woman became insane shortly afterwards, and was transferred to the asylum of la Salpêtrière. No relapse has since taken place.

The third case referred to a lady, aged thirty-five, who, for ten years, had borne a vesico-vaginal fistula, seven centimètres in extent, also the result of severe labour. On the 21st of October, 1846,

she was operated on in the same way, and a complete cure was obtained in the space of six weeks.

**INHALATION OF ETHER.**

A sealed paper, deposited on the 28th of November, at the request of Dr. Jackson, of Boston, was opened; it contained a letter from Dr. Jackson, dated November 13th, giving a complete historical account of the new discovery.

A letter was read from a Dr. Ducros, of Marseilles, the inventor of a method professing to cure all diseases by cauterization of the throat with ammonia. Of late this ingenious gentleman has endeavoured to give further extension to his therapeutic views, by proposing to employ opium, quinine, and other substances, in the same manner as ammonia, viz., by placing them, with a pencil, in contact with the mucous lining of the pharynx. A commission has been named for the purpose of examining these notions, but of course also that commission does not take the matter *au sérieux*. The author's principal object, viz., publicity in the political journals, is, however, attained, the reporters of these journals not being always in a position to distinguish between real science and barefaced quackery. Dr. Ducros, however, claims the discovery of the stupifying property of ether, for the glory of France (*sic*), on the following grounds:—Some few months since he forwarded an account of some experiments performed on gallinaceous birds. M. Ducros had noticed that, when their pharynx was touched with ether, they fell asleep, and that opium restored them to consciousness. On this simple statement Dr. Ducros founds his claims to the discovery, and claims it for the glory of France, forgetful that it is not sufficient to stumble over a fact in order to obtain the credit of being an inventor, but that its practical bearings must also be brought to light. The experience of others might have taught M. Ducros another lesson. Pyroxiline was chemically known before Professor Schönbein's gun-cotton was thought of, but the credit of that discovery must still lie with Schönbein, because he was the first to detect the explosive properties of the compound. M. Ducros should recollect, it is not enough for a man to have a lantern, he should also put a candle into it.

**CREATINE.**—M. Pelouze presented a paper from Baron Liebig, containing some researches on animal chemistry. Baron Liebig asserts, that in muscular flesh he has detected the presence of a special principle, creatine—a neutral substance, crystallizing in the same form as chloride of sodium. The acidity of the muscles is, according to the author, due to the presence of lactic acid in their tissue.

**COMPARATIVE ANATOMY.**—M. Lacauchie, professor of anatomy at the military hospital of the Val de Grâce, forwarded a paper, describing a secondary urinary bladder in the hog. In that animal the prepuce forms a long duct, placed between the skin and the abdominal muscles. Above this duct is placed the supplementary bladder, furnished with a perfect muscular coat, and presenting great regularity in its organization.

**ACADEMY OF MEDICINE.**

Meeting of Jan. 19; M. Bégin in the Chair.

**INTERMITTENT FEVER.**  
M. Castet did not believe that the cause of ague resided in the enlargement of the spleen; it was, when the fever had lasted a long time—"post et diuturnas febres," as Morgagni hath it—that the spleen became hypertrophied.

M. Piorry remarked, that the spleen was found enlarged after one or two paroxysms of fever; in seventeen cases of inflammation of the spleen, published by him, intermittent symptoms had been present, and he had met with these intermittent febrile paroxysms whenever the spleen exceeded nine centimètres in its longitudinal diameter.

**ETHERAL INHALATIONS.**

M. Honoré related the case of a well-known journalist, M. G. de C., who, seventeen years

ago, being affected with a very painful neuralgia, obtained relief only by the inhalation of ether from a phial with a broad aperture.

M. Malgaigne said, that in the case of amputation of the leg, in which he had employed ethereal inhalation, he fancied the reaction after the operation had been rather weaker than in ordinary cases; he had been struck by a singular circumstance: of the persons under the influence of ether, which he observed, several were quite unconscious of pain, but, at the same time, distinctly heard what was said to them, and even answered correctly.

M. Boyer presented a large polypus, extracted from the womb during parturition. It had occasioned premature confinement and the birth of a six months' child, who lived only a short time. The mother was doing well.

The meeting adjourned at five o'clock.

**HOSPITAL OF LA CHARITÉ.**

**ALBUMINURIA.—TREATMENT BY THE EXTRACT OF RHATANY AND VAPOUR-BATHS.—CURE, BY M. RAYER.**

Case.—A man, aged thirty-one, mechanic, was admitted into the hospital on the 28th of December, 1846. Fifteen years ago the disease began by a considerable anasarcaous swelling of the feet, which lasted three or four years. Erysipelas of the legs appeared, and was dispelled after six weeks, leaving the oedematous swelling by which it had been preceded. This state of things continued, and five years ago the patient entered M. Rayer's ward, where he was treated by aromatic fumigations, iodide of potassium, and warm baths. Under the influence of these measures the dropsy yielded, but the albuminuria persisted. At the end of a week the oedema showed itself again, and the treatment having been instituted anew, a considerable improvement was obtained. Since that period the patient enjoyed uninterrupted health, but the symptoms returned in the beginning of December, 1846, without any apparent cause. The legs and scrotum were considerably infiltrated, and ascites was present: a general sensation of lassitude, and pain in one, sometimes both sides of the abdomen, were complained of; the bowels were confined, the appetite preserved, and frequent paroxysms of cough were observed; the urine was pale, slightly acid, abundant, and contained a large quantity of albumen—coagulable by heat and nitric acid. Every day 3ss. of extract of rhatany was exhibited in a mixture; vapour baths were ordered, and low diet. Under the influence of this treatment, a gradual amelioration occurred, and on the 10th of January the urine contained no more albumen. On the 12th the patient left the hospital, if not completely cured of his renal disease, at least cured of the symptoms which he had laboured under, and which are generally looked upon as characteristic of granular disease of the kidney.

**HOPITAL SAINT LOUIS.**

**PAINLESS OPERATIONS, BY DR. MALGAIGNE.**

1. The first case was that of a man, aged thirty-five, affected with a phlegmonous abscess of the right leg. The apparatus employed for the inspiration of ether consisted of a glass bottle, presenting on its side a long tube; small pieces of sponge, impregnated with sulphuric ether, were placed in the bottle, and the patient was desired to inspire through the tube, and to expire through his nose. After two or three minutes, the patient said that his sight was growing dim, and the incision of the abscess was performed; the countenance was red, the eyes closed, and the muscles of the face and superior extremities in a state of violent contraction. This state lasted only two or three minutes, when a glass of wine was handed to the patient, who swallowed it with precipitation. Consciousness instantly returned; no pain had been experienced beyond that which might be produced by a slight scratch.

2. In a man of forty-five, amputation of the



index of the right hand had become necessary in consequence of necrosis. Inhalation of ether was continued during four minutes, when the patient declared he felt a sort of intoxication: the finger was then removed, the pain being compared to a puncture. The pulse rose to 88 during the inhalation of ether, and to 92 after the operation; immediately after which, sensation returned, and the wound became the seat of pain.

3. A girl, aged eighteen, presented on the right hand an abscess which required incision. After four minutes' inspiration, consciousness ceased, and the operation was performed without producing pain. The insensibility of the part persisted for several minutes after the patient had recovered in other respects the effects of the ether.

In all three cases the breath preserved for some time the characteristic odour of the substance employed to paralyse sensation.

Jan. 22. A patient affected with a cancerous tumour of the thigh was submitted by Professor Velpeau to the inhalation of ether previously to operation. In four minutes sleep was induced, and the growth removed *without pain*. The patient had already been twice operated upon.

M. Marshall and Dr. Brewster, dentists, in Paris, have both used, with full success, the inhalation of ether, for the purpose of extracting teeth without pain. M. Marshall observed, in many instances, a remarkable increase of action of the kidneys, which continued for some time after the operations.

#### FACULTY OF MEDICINE. LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

The first order of derangement of solid textures we have subdivided into two classes, viz., alterations of conformation and of position; they do not present much interest, and will not therefore detain us long. We may consider them in a three-fold light, according as they are constituted—by an arrest, by an excess, or by an irregularity of development; thus giving rise to three kinds of monstrosity which may or may not be compatible with the persistency of life.

The second order of derangement of solids is that in which an alteration has taken place in the number of their component particles; this order contains two classes—1, hypertrophy, and 2, atrophy—which we will study in succession.

1. Hypertrophy is constituted by an increase in the number of particles of a solid texture, by which the latter becomes more dense and more voluminous; this change implies the idea that no other alteration is present, and may be accounted for by an augmentation in the activity of nutrition. Hypertrophy must be carefully distinguished from that increase of size which hyperemia produces in any organ: in hyperemia it is the fluids contained in the solid, not its component particles, which are increased in quantity. Hypertrophy shows itself in most tissues: thus we find it in cellular textures, particularly those which form the substratum of mucous membranes; also in those which support serous surfaces, where it has occasionally been mistaken for scirrhus. It is observed in mucous membranes, the elements of which can also be isolatedly hypertrophied—the villousities, for instance, and the follicles, as in some cases of chronic diarrhoea. The same remark equally applies to the skin, which may be altogether affected, or in its separate anatomical elements; thus we have seen in disease the various layers of the skin—the corium, the rete mucosum, the epidermic papillary layer of Dutrochet, or the horny layer (*couche cornée*)—each acquire a degree of development which rendered them perfectly distinct from each other. The fibrous tissue is also susceptible of hypertrophy; in the heart, for instance, we frequently see that the persistency of morbid action increases considerably the fibrous textures of the orifices and valves, which are in a rudimentary state of existence during health. Exostosis is the hypertrophy of bones. In the nerves,

hypertrophy has not been hitherto properly studied, but in the nervous centres it has been often and correctly described. It has been found most undoubtedly in the brain, particularly in its hemispheres, in some cases of epilepsy; in the spinal chord it may exist with greater impunity, because the chord is enclosed in a bony canal, which it is far from filling completely, and by which it is not so readily compressed as the brain by the cranium. The nervous centres of organic life, the ganglions of the sympathetic nerve, especially in the neck, have also been found in a state of hypertrophy. The muscles are more frequently than any other textures affected in this manner. The heart, stomach, intestine, bladder, can all be hypertrophied. As to the muscular apparatus, said to exist in the bronchi, we have not seen any distinct increase of development from disease; the muscles belonging to locomotion are subject to the same alteration, in consequence of augmentation of activity in the accomplishment of their functions. In many parenchymatous textures, hypertrophy is also noticed, viz., in the thyroid gland, in the liver, in the kidneys. With regard to the latter, it is not uninteresting to remark that, when one kidney ceases to perform its duties, the other becomes enlarged; the exaggeration of the function occasioning an exaggeration of nutrition. Enlargement of lymphatic glands is also, as you well know, extremely common.

The causes of hypertrophy may, in some instances, remain unknown; it is often brought on by the repeated action of a stimulus; the stimulus may act merely by causing an excess of action, as, for instance, in hypertrophy of the heart, resulting from repeated nervous palpitation, or by being propagated from one tissue to another: e.g., when chronic endocarditis extends gradually to the muscular coats of the heart, producing in them morbid development; or again, when, by constriction of the orifices of the cavity of any organ, that organ is compelled to increased exertion for the purpose of overcoming the obstacle: this is observed not only in the heart but in the stomach, intestine, bladder, &c.

Hypertrophy may be a perfectly local alteration, but it is sometimes the consequence of a general cause acting upon the entire system: this we remark in one particular malady, scrofula, in which the tonsils, thyroid gland, liver, lymphatic system, and the extremities of the long bones, all betray a singular tendency to increase of size.

2. Atrophy is the opposite condition to the former. In its first degree we observe only a diminution of the number of the component particles of a solid. In the second, these component particles have disappeared, the organ being reduced to its cellulo-vascular framework. During the progress of life we observe the gradual atrophy of certain parts: in the embryo, the vesicula umbilicalis, the pupillary membrane; after birth, the thymus, the supra-renal capsule, the left lobe of the liver, at a more advanced period of life, the lymphatic glands, the ovaries; and in the aged, the lung and brain—all gradually diminish in size, some even disappearing altogether. Morbid atrophy may be observed in all tissues, in the muscles, for instance the heart; certain portions of mucous membranes are particularly subject to it: e.g., the mucous coat of the stomach; we meet with it in the liver and in the kidneys; the atrophy of one of these last-named organs usually occasioning hypertrophy in the other. The cause of atrophy is often the cessation or diminution of energy of the function of the organ: paralysed muscles lose their size and resistance, not account of interruption of the nervous influx, but on account of their immobility—a fact proved by the occurrence of atrophy in limbs condemned by disease of bones or joints to remain in an immoveable state. In marasmus the muscular and adipose textures are those which principally suffer. We also find atrophy caused by prolonged compression. In the second degree of atrophy, when the alteration is carried to its furthest extent, the solid has disappeared, and its place is occupied by cellular tissue, adipose deposits, or serous fluids.

3. The third order of derangement of solids is that in which a change has taken place in their consistency; hence induration and ramollissement.

Induration occurs in all tissues; amongst membranous textures, the mucous are the most subject to it; amongst parenchymatous, we chiefly observe it in the brain, liver, and lung. The increase of hardness may be accompanied with a change of colour of the part, which sometimes assumes a yellow, greyish, and oftener a blackish hue. Induration is generally considered to result from chronic inflammation, an observation which is not always correct; thus we find the spleen indurated and smaller than in its healthy state, particularly in cases of organic disease of the heart, when no inflammation of the spleen can reasonably be supposed to have existed.

Ramollissement is constituted by diminution of the natural consistency of any part, and presents three degrees: in the first, the softened tissue still preserves almost a healthy appearance; but it is more easily crushed, as in hepatisation of the lung. In the second degree, the part is reduced to a half-fluid, pulpy condition; example: the brain and gastric mucous membrane. In the third degree, the softened tissue disappears altogether—a fact occasionally observed in the stomach. Softening may occupy all tissues, the membranes as well as the parenchymata of the body. It is common on the mucous, cutaneous, and serous surfaces; we find it also sometimes in the middle coat of arteries. In the nervous centres it has been carefully studied.

When a tissue is softened it may at the same time be congested; and this hyperemia is betrayed by the red colour of the affected part, hence the red ramollissement. But congestion is not necessary to the existence of softening; in some cases even the diseased organ seems to contain less blood than in its healthy state. What is the nature of ramollissement? In by far the great majority of cases it may be looked upon as the result of inflammation, and as one of its most important and characteristic anatomical consequences. This assertion is supported by the presence of congestion previous to the establishment of softening, and by the production of pus in the softened organs; it is also confirmed by the remark that its causes are generally of the same nature as those which bring on inflammation; it is further proved by the fact that the symptoms of ramollissement are the same as those of phlegmasia; all tissues which have lost their consistency should not, however, indiscriminately be stated to be inflamed. Other cases very different from phlogosis may, during life or after death, cause ramollissement in our organs; during life, for instance, we must admit that certain changes may occur in the relative proportions of the component parts of any tissue, in consequence of which its natural consistency may be diminished; and here it is proper to throw into relief some physiological facts. In the females of some animals, previously to parturition, we observe the softening of the pubic cartilage. In man the brain varies in consistency at the different periods of life, being almost fluid in the embryo, more dense in the child, and much harder in the adult; in disease we observe, without the interference of any inflammation, a remarkable diminution of the amount of earthy salts contained in the bones. Louis has recorded several singular cases of softening of the entire cerebrum, in which no symptoms whatever of encephalitis had preceded death. We do not believe that interruptions of the arterial circulation has ever been positively ascertained to have produced ramollissement in the brain. Thus it is proved that, in some rare instances, no inflammation has preceded or caused the softening; but it remains an undoubted and incontrovertible fact, that by far the greatest number of cases of ramollissement, particularly of the brain, have resulted from phlogistic action. What is the nature of white ramollissement? In an excellent monograph, written by Dr. Durand Fardel, the opinions of which we adopt; this question has been carefully studied. It is now proved, beyond dispute,



that wheaever *post-mortem* examinations have taken place, less than thirty days after the occurrence of softening, the colour of the diseased part has always been more or less red, and that colourless softenings are only met with when the patient has lived four weeks after the alteration of the brain. In the spleen, it is not the solid particles of the viscus which are changed in consistency, but the splenic matter; and this coincides with diminution of fibrine in the blood—a condition observed in typhus, in certain patrid eruptive fevers, in scurvy, and purpura: in pernicious intermittent fever, M. Bailly, of Blois, has noticed it in a very singular and hitherto solitary case:—M. Gaultier de Claubry met with a general softening of the muscles in a pupil of the Polytechnic School, who died after three days' illness. After death we find that the more or less rapid progress of putrefaction diminishes the solidity of our textures, and may, consequently, become a cause of error. We also must mention that, when the stomach contains food at the moment of death, the action of the gastric juice upon its walls may soften and even perforate them. The remark was first made in 1818, by Dr. Camarès, whose experiments were afterwards repeated by Dr. Carswell in France. Cooper, Carlisle, Adams, and Spallanzani, all agree in the correctness of the observation. We have remarked ourselves the solvent action of the gastric juice on the stomach of beheaded criminals. Allan Burns confirms, also, the truth of the statement we have made.

Ulceration is a special mode of destruction of solid textures characterized by solution of their continuity, without any tendency to healing. Ulceration may be consequent upon the obliteration of small blood-vessels (Lebert), and in most cases it results from general causes; thus, in debilitated subjects, prolonged station, and even pressure upon any part of the body, may occasion ulceration. It is not easy to describe generally the process of ulceration, but we can readily follow it in the various textures of the body. It is in the skin and in the mucous membranes that it is chiefly observed; simple inflammation seldom occasions ulceration of the skin, but we have shown that certain mechanical disturbances of its circulation may cause it; also certain forms of eruption (ecthyma) and cancer. It is a special property of syphilis, of scrofula, and of scurvy, to ulcerate the skin; but the weakened condition of the system is always a principal cause, which must not be lost sight of; in debilitated subjects leech bites sometimes fester and ulcerate. The same morbid phenomenon is met with equally in mucous membranes—in the digestive organs, for instance—although it is seldom the consequence of uncomplicated inflammation; in the mouth, ulceration is very frequently brought on by syphilis; and in the œsophagus, chronic ulcers are most generally produced by cancer. The same remark also applies to the stomach, where chronic gastritis seldom terminates by that mode of destruction; it is to cancer that it should mostly be referred. The isolated and aggregated follicles of the small intestine are often affected in this manner during the progress of typhoid fever, and, also, in consequence of the existence and softening of accidental products, such as tubercles, cancer, &c., underneath the mucous membrane. With the exception of cancer, therefore, two diseases only—one acute typhoid fever, the other chronic phthisis—produce intestinal ulceration. Perforation is even sometimes the result of these diseases, and is observed only in one of the three maladies we have mentioned. In the large intestine, ulceration recognises a special cause—dysentery; here, also, perforation may occur, followed by fatal peritonitis, but the latter accident may be prevented by one of three mechanisms, viz.—1. A neighbouring viscus supplying the place of the destroyed intestinal wall; 2. An abnormal communication being established with the skin; or, 3. The intestine ulcerating into the cavity of another viscus, the bladder, vagina, &c. In the respiratory apparatus we find ulceration also—in the nose, for instance, where scrofula,

syphilis, farcy, often produce it. As we proceed let me state that in consumptive horses the schneiderian membrane is very often found ulcerated. The same alteration is common in the larynx, from chronic disease, but it is in that region seldom idiopathic, and accompanies, generally, organic change in the texture of the lungs. In the larynx, two morbid causes tend to produce the alteration which we treat of—syphilis and tubercles, more especially the latter, not from the constant existence of tubercular deposits under the laryngeal lining, but often, as Louis has shown, from the remarkable tendency to ulceration observed during consumption in all solid tissues. In the trachea, M. Cayol has described an uncommon form of idiopathic ulcer; but there, and in the bronchi, it is usually symptomatic of phthisis. The genito-urinary mucous membrane, that of the vagina, the integument of the os tincæ, are also liable to ulceration; it has even been seen in the lining of the gall-bladder. The internal membrane of the heart, of the arteries, of the veins, are all susceptible of becoming ulcerated. In serous membranes, in synovial sacs, circumscribed losses of substance may sometimes be referred to the same morbid process; also in parenchymatous organs, the brain, the lung, ulceration occurs. In the latter viscus it may be occasioned by three forms of disease: first, tubercular productions, softened and expelled through the bronchi, leave behind them cavities which are real ulcers; second, acute inflammation and gangrene—Bayle's ulcerous phthisis is merely gangrene of the lung; third, purulent pleurisy occasionally terminates by perforation of the pulmonary substance and evacuation of the pus through the bronchi.

In the fourth class of derangement of solids we place accidental productions: they are of two sorts: first, inorganic deposits of saline matter in solid textures; and, second, organized products participating in the phenomena of life. To account for the formation of the organized morbid deposits, the so-called cellular theory, born in Germany, has been brought forward. Of this theory we will now attempt to give a brief explanation. All textures are supposed to originate in a cell developed in amorphous matter: the cell arises from the following transformations:—The first substance separated from the blood is called the *blastema*, and, by some, the *cyto-blastema*. On the surface of this particle of matter the microscope shows a number of granular corpuscles, to which the name of *nucleoli* has been assigned. By the union of several of these granulations the *nucleus* is formed, around which appears a membrane, at first adhering closely to the nucleus, but gradually separated from it, generally by a fluid; the cell is then completely formed.

#### NEW OPERATION FOR CATARACT, BY M. LANGIER.

This method, which is not quite new, but which had entirely fallen into disuse, consists in the introduction of a hollow needle into the opaque lens, and in the removal of the cataract by aspiration. The instrument employed is formed of a tubular needle, screwed to a small air-pump, which serves as its handle. The needle is passed through the tunica sclerotica, as in couching, and penetrates into the inferior, external, and posterior part of the crystalline lens. The needle being then kept in a complete state of immobility, the piston of the syringe is thrown into action so as to create a vacuum and aspirate the opaque and soft parts of the lens. This method has been employed by M. Langier with success in one case, and is clearly applicable only to soft cataract.

This system had formerly been recommended and practised by Abulkasam. In the fourteenth century, Galeatius, of Sancta Sophia, a commentator of Rhagis, claimed its discovery as his own; and, in the seventeenth, Mathiolus added to the apparatus a golden probe, destined to be passed through the cavity of the needle, and to crush the cataract previously to removing it by suction.

D. M'CARTHY, D.M.P.

M. Sedillot communicated, at the last meeting of

the Medical Society of Strasburg, the results of his experiments on animals, in which an external opening had been made directly communicating with the stomach (*gastrotomie*). In the month of July he performed this operation on a dog, and afterwards kept him carefully muzzled. He introduced daily into the stomach, through the wound, 600 grammes of bread and a litre of soup. In July the dog weighed 7,500 grammes. On the 3rd of December he had increased to 8,500 grammes. On the 15th of December M. Sedillot performed the operation on a second dog, and tied the œsophagus at the same time. He gave the same amount of nourishment as to the first dog, in a similar manner. He weighed 6,200 grammes at the time of the operation, and then weighed 6,250. The two animals, shown to the society, are active and in good condition; they endeavoured to seize a piece of beet-bread placed on the table.

These experiments show that this operation may be performed without danger, and that it supplies a means of artificially nourishing persons deprived of the natural passage for food by disease.

#### JERSEY HOSPITAL.

#### CASE OF UNUNITED FRACTURE OF THE TIBIA OF NINETEEN MONTHS' STANDING.

By G. M. JONES, Esq., Surgeon to that Hospital.

Edward Clements, aged twenty-two, admitted September 7, 1846; seaman. Of a strong plethoric habit; had enjoyed uninterrupted good health previous to February, 1845, when the vessel in which he was employed came in collision with another; he was struck by the bowsprit of the latter on the left leg, which caused a compound and comminuted fracture of both tibia and fibula: the former protruding about seven inches below the knee, the latter nearly three inches; states the hemorrhage to have been very considerable at the time, continuing more or less for five days. No medical officer being on board, the place was supplied by the master, who used extension, by which the bones were reduced, and splints (such as they were) applied; from the motion of the vessel the bones were constantly getting out of place and protruding; although in this state for twenty days, there was very little suppuration; and, at the expiration of sixty, he was removed into hospital at Mobile; there he remained for some time without benefit, and, no union taking place, removal of a portion of the bone was proposed; but this the sufferer refused to submit to, and resolved to return to his native country. For a few months he remained quietly at home, partial union took place, and he was able to go about a little on crutches; he was then admitted into this hospital (ten months after the accident); here he remained for rather more than three weeks, when believing, or rather fancying, that he had improved, he quitted the establishment, and after a time entered on board another vessel, and ventured on a voyage to America; during the voyage he contrived to do some duty, though with considerable difficulty. While in America he slipped on the ice, and fell with his wounded limb underneath him, at which time he felt something crack (as he says) internally; from that period he was entirely unable to do any duty, and on his return was admitted into one of the metropolitan hospitals, where he remained for six weeks without the slightest benefit, although the limb had been leeches several times, and many blisters applied to it. He once more resolved on returning to his home (Jersey). On his second admission into this hospital (September 7), he walked with very great difficulty, and with the assistance of a crutch and stick; and in progression there was considerable motion in the fracture, and attended with pain. On examination, the leg appeared considerably bent outward, was upwards of one inch shorter than the other, and swollen over the seat of the fracture, in which partial motion was distinctly found; on applying the hand, the portion of fractured bones seemed to have been greatly displaced, and overlapping,



and the fibula to have been driven under the tibia. It was evident the tibia was altogether unable to support the body, and that the whole onus of doing so was performed by the fibula; the patient dreaded even an attempt to walk, alleging that the least exertion would cause the leg to bend entirely under him.

Nineteen months had now elapsed since the first accident, and it is evident, from the history already given, and from other circumstances, that no solid union of the tibia had ever taken place during the whole of this time. The unfortunate patient, accustomed to an active life, was weary of his existence, and willing that every method should be tried to bring on union, and even expressed his readiness to lose the limb rather than retain it as a useless member. An operation was therefore determined on.

**Operation.**—Having about two years before been successful in bringing on union in the tibia of a female (sixty-eight years old), by sawing the ends of the bone six months after the fracture had occurred, I decided on pursuing a similar course; and for this purpose a longitudinal incision, seven inches long, was made over the fracture, and the integuments dissected back, in order to expose as much of the tibia as possible; this dissection at once showed that the object I had proposed was altogether impracticable, for the bone appeared to have been completely shattered, and only partially united; in fact, the scalpel could be easily introduced between the edges of many pieces; these were scraped and irritated as much as possible, a strong curved needle was passed through several portions, and at that part where most motion was perceptible, a seton was introduced; the wound was then filled with lint, and pledgets of the same well moistened in cold water were applied. The hemorrhage throughout was not considerable. The limb was left in this state for a week, during which the inflammation was not so severe as might have been expected; at the expiration of this period, the same dressings were continued, and the limb placed in a frame with two leg splints, both made to fit the foot; these extended midway up the thigh, and were padded in such a manner as to effect the object in view. The outside splint was a fixture, straps were fastened to it, and buckles to the inner one; by this means extension was made on the upper and lower portions of the bone at the same time. The leg was kept in this position for more than three months; during the whole of this period the wound continued to discharge, but never very copiously. For two months it often assumed rather an angry appearance; this was, however, soon overcome by the application of emollient poultices, or mild dressings.

I have omitted to remark that, at the end of the first week the seton was removed. On the 12th of December the leg was for the first time examined, and my medical friends and myself had the satisfaction to find that every portion of the bone was completely consolidated. A starch bandage was then applied; this was removed a few days ago; the leg is very nearly, if not quite, as straight as it ever had been, and the patient is now able to walk without the least pain, inconvenience, or lameness.

**Remarks.**—I have been induced to publish this case, believing that it must, in some degree, prove interesting both to the surgeon and to the pathologist, for it plainly shows that the resources of Nature can be called into action even at a period when her powers may have been looked upon as lost. I will not pretend to say that efforts were not going on to effect the result which was at last accomplished, from the time of the accident to that period when the bone became consolidated; for, from the time of the injury to the patient's last admission into this hospital, a sufficient period of rest had never been allowed for perfect union to take place; on the contrary, the impatience of the patient on the one hand, and on the other the advice given him to exercise the limb as much as possible, could not otherwise

than thwart any attempt at union, and prove prejudicial. Whether a three months' perfect rest would have brought about union without the painful operation resorted to, seems to me more than problematical. At first I felt inclined to see whether "Nature unassisted" would accomplish a cure; but a little more reflection, backed by the advice of some of my medical friends, induced me to cut down on the bone, and thus make myself, as much as I possibly could, acquainted with the real nature of the case. It is also quite impossible for me to say whether the steady employment of external means would of itself have proved sufficient to bring on that degree of irritation so absolutely necessary. I am inclined to think not. Nineteen months had transpired since the accident; the pain felt on walking arose, not from any irritation along the shattered bone, but from the weakness of the fibula, and its increasing inability to support the weight of the body. It is quite certain that, although the operation never produced any very great inflammation, still it not only had the effect of keeping up a discharge from at least one third of the tibia for some time, but also a certain amount of irritation, which, though never very great, was nevertheless, during the period it lasted, very apparent, and was often felt and complained of by the patient. I am, therefore, of opinion that the propriety of the means adopted are borne out by a fact which must assuredly predominate in a great measure over speculative opinion.

Jan. 15.

## REVIEWS.

*Notes on Epidemic Cholera.* By R. H. KENNEDY, M.D. 2nd Edit. 12mo. London: Smith and Elder. 1846. Pp. 279.

This is a work rather calculated to be of service to the Eastern practitioner, or to the naval or military surgeons, who may find in an Oriental mission his chief sphere of duty, than to the practitioner at home. Most of its details are derived from an observance of cholera ravages in those quarters where its virulence is most fatally expressed, and from extracts furnished in the chief reports, by competent medical authorities, concerning the rise and progress of this devastating ailment. In Dr. Kennedy's work is contained much valuable matter, both original and select; but it is, unfortunately, so badly arranged, and the practical so intermixed with the theoretical, that the better parts are with difficulty separated from those that are inferior. On this account it is more tedious than it ought to be, to read, and is not analysed without considerable trouble. Should the work, as it well deserves, see other editions, we would urge upon its able author the necessity of a better style of arrangement; the exclusion of certain quotations, from Celsus downwards, which materially weaken and mar the usefulness of the text; and the addition of an index, or summary, more copious than the present "contents," which would be a direct guide to the better portions of the volume.

Dr. Kennedy is a believer in the contagiousness of cholera. He quotes from the Madras Report to the following effect:—

"The perspiration or moisture is often free from odour; at other times it has a fetid, sour, or carthy smell, which has been said to be peculiarly disagreeable, and to hang long about the nostrils of the bystanders."

He says—

"This curious circumstance had struck me from the first. The smell always seemed to me something like that which arises during an operation in sawing through a principal bone; it is a faint, sickening sort of smell, and one awakes, even in the middle of the night, with the sensation of smelling it; the blood even is tainted with it to an offensive degree."

"To conclude, however, to the best of my judgment, I know no character belonging to any contagious disease which cholera does not appear to me to possess; and that, if it be not contagious,

I know no other disease which I should be inclined to consider so."—(Pp. 74, 75.)

The essential cause of collapse-cholera our author regards to be a concussion of the brain. This opinion he endeavours to substantiate by reference to various cases, and the particularities of them, and by some ingenious analogical reasonings. The term *concussion* is, perhaps, ill chosen, considering that, according to our author, it does not arise from extraneous causes of a direct *mechanical* nature, but from adventitious causes which pervert or prostrate the *nervous function*. The substance of the theory is likely enough correct, though the expression of it seems to us to be at variance with strict realities.

In the course of his analogical reasoning, Dr. Kennedy relates the following interesting anecdote, as showing how a sudden shock upon the brain, and an arrest of its intellectual functions, are likely to be followed by certain organic actions of an evaculatory nature, and which, he says, are instituted to afford the system relief. In this manner he considers the purging and vomiting as *salutary natural crises*, in the course of cholera.

"I was (very many years ago) one of a party of young men on a picnic hunt, when, after a morning's enjoyment, we rested at noon for refreshment on a ruined Mahomedan tomb. The building was very extensive and very lofty, and, like all others of the same order of architecture, was what I think the Italian architects term a *lanthorn*, that is, with a vast number of open arches in every front, and exactly opposite to each other, so that, when seen at a distance, it has more the appearance of the skeleton of a building, run up quickly before an apprehended change of weather, than a finished work. Whilst our meal was preparing, some of the young men were chasing each other up and down the narrow slippery stairs of the tomb, from story to story, and chamber to chamber; but the majority of the party were seated in the uppermost room, enjoying the beauty of the prospect. Suddenly, the noisy revellers to whom I have alluded burst into the apartment full cry, and, rushing through it, descended by another staircase, opposite to the one they had ascended by. One of them, outstripped by his companions, entered the room just as the rest were out of sight, and the sounds of their shouts misleading him, when hurrying at full speed, in his ignorance of the geography of the doors and windows, he ran with all his might at a window, nor could he correct his mistake until he stood balanced on the very brink of what might be termed its threshold. Never were a company more petrified with horror than ourselves; he appeared to all human help lost; for, in our alarm, he seemed actually to be beyond the window, which we knew to be almost 90 feet from the ground, and a stone pavement to fall on. In this dreadfully hazardous situation the young gentleman remained a second or two, apparently rocking backwards and forwards, as if losing and recovering his balance, until at last, uttering a faint shriek, he fell backwards into the room! On lifting him up, we found him cold and faint, with a clammy perspiration streaming from every pore; he could answer every question put to him, but otherwise seemed unconscious of what was passing; and, as he sat on the floor, stared wildly around, with the most frantic and bewildered look that can be imagined. There were no means of bleeding him, but he happily soon complained of nausea, when I gave him a dose of salad-oil and warm water to drink, which immediately brought on convulsive action of the stomach and bowels, each vomit being simultaneously accompanied with that species of alvine discharge which the prefacc to the Bombay Report on Cholera describes as being more like the forcible ejection from a syringe than the ordinary operation of the rectum. This continued for about half an hour, when the distressing symptoms abated. Had not the critical action of the stomach and bowels relieved the oppression on the brain by such timely evacuation, I cannot but believe the sufferer would have been deprived of reason, or have suffered some organic injury of the brain, by the shock.

"In reflecting on this case, I would ask, if this disorder were not concussion of the brain, what was



it? and, if the critical evacuations were not sanitary, what were they, and how occasioned? The quantity discharged was out of question ten times as much as the bowels could have commonly contained, or at least, had they been so loaded, the patient could not have attempted the active exertions he had been pursuing all the morning. (Pp. 123—126.)

In accordance with this theory, our author advises that the treatment of cholera shall be that pithily suggested by Captain Sykes: "bleeding, followed by an emetic and a cathartic." The rationale is, "bleeding to reduce the nervous irritability, an antimonial emetic to excite the constitution to its natural process to relieve the collapse, followed by the castor oil with laudanum." (P. 222.)

This is a form of treatment which obtained some credit in this country, and by its partisans was declared to be antidotal; in the hands of other practitioners, however, it proved quite unavailing, and the best judges regarded it, like the other endless remedies for this mysterious disease, of no certainty whatever, and, at the best, of very doubtful success.

This work of Dr. Kennedy's, notwithstanding the faults we have mentioned, is very ably written, and contains much that will both instruct and entertain the professional reader.

**TO CORRESPONDENTS.**

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Fusbos.—The squib is excellent, and we thank the author for his witty production; but we doubt whether it would be proper to insert it at present. We shall take it into further consideration.

A Graduate of Edinburgh.—If the writer possesses the degree of M.D. of that University, he can claim admission to examination by the College of Physicians without any certificate of hospital practice. At any rate, we should say that the attendance he mentions would be sufficient. He can ascertain further particulars by application to the Registrar, at the College.

An Irish Ignoramus cannot surely have read the Medical Times, or he would have seen that we have the fullest belief in the genuine character of the effects of vapour of ether.

Mr. Bicknell.—The change in the voice about the age of puberty is usually of a gradual, and not a sudden, character. There is no reason to think that exertion of the voice during that change is usually followed by any inconvenience.

Communications have been received from Dr. Wake, Dr. Gregory, Mr. Morgan, Mr. Cotton, Dr. Murray, Mr. Jones, Mr. Close, Dr. Deverell, Mr. J. Welsby, and Mr. Philpot Brookes, as well as from several anonymous correspondents.

A. G.—The address of Mr. Startin is 3, Finsbury-place South.

Lex.—A licentiate of the Apothecaries' Company is legally qualified to practise medicine and midwifery; and, although not qualified to practise surgery, the College of Surgeons possess no power to prevent him from performing the functions of a surgeon. He is not qualified, according to the Regulations of the Poor-law Commissioners, as

a medical officer to a union. To the third question we answer as above, that neither is eligible.

Cimex's letter to the "Editress of the Medical Gazette" should have been sent direct to its destination. We are not the channel of communication to our contemporary, if she be yet in the land of the living.

M. D. is just in his remarks on the document of the College of Physicians. We are obliged for them. So many correspondents have addressed us on ether, that we must be excused for the omission of many communications.

The case of Dr. Lynch, as submitted to us by Mr. Carpenter, is under consideration.

M. H.—The case of the Hounslow inquest will be reported fully in our next.

## THE MEDICAL TIMES.

SATURDAY, JANUARY 30, 1847.

"But poverty could never draw 'em from me."  
"When that the poor have cry'd, Caesar hath wept."  
SHAKESPEARE.

THERE is an old saying to the effect, that "what is everybody's business is nobody's business." This is one of those stupid old aphorisms, begotten of ignorance and prejudice, that the march of modern enlightenment should have consigned to the "tomb of all the Capulets," ages ago. But it has not been so consigned, for it seems to be as rife now as ever—many a rail and other speculation can testify to the truth of this. Nevertheless, it is a falsehood: just one of those downright daring lies that brave exceptions with a bronzed face, and laugh contradictory demonstration out of countenance. Falsehoods like these have a faculty about them said to be peculiar to an antique reptile, which was reported to be able either to reunite itself when divided, or to impart to each division the property of individual existence. This is just the fact with the quibble in question. It has often been knocked on the head; but the adventurer has scotched the snake without killing it: it has been pulled to pieces, but has either grown together again, the tougher (like lanced gums) for the division, or each type of the mutilation has flourished singly, and thus has the radicle of the old wickedness been multiplied. But it is a lie, notwithstanding its age, and its many facilities of self support and propagation. Ourselves entertain an opinion the direct contrary of the sinning old aphorism above quoted: We incline to the notion, that what is everybody's business is that sort of duty which nobody should be ashamed of, or be guilty of neglecting. If a certain number of people are responsible for a certain work, every man amongst them is responsible for it. Resting, though it be, upon the mass, this mass is composed of minutiae, not one whereof can consider him self exempt from obligation, or can impose it upon another. In good truth, what is everybody's business must be fairly attended to by everybody, or the said business will be indifferently done. Where there is unanimity of object, there must be unanimity of operation, or the end of it will be defeated. In the same cause, all engaged should agree to work together, and at once. Simultaneous action is the very soul of successful enterprise. "Union

is strength": the fable of a bundle of sticks is illustrative of one of the grandest truths in the economy of human nature!

These two propositions established—we assume them to be so, for we believe them incapable of rational contradiction—we have next to apply them. A task, we grieve to say, not very difficult at the present time. Their application is to the condition of certain of our fellow-men. Every man is our fellow-man; no matter where he first breathed the air, and first saw the light of heaven; no matter what ancestry disgraced or distinguished him; no matter what complexion he once wore, what language he once spoke; no matter under what captivity he wept, or at what shrine he worshipped—he wears the outward impress of humanity—he has a soul, immense and immortal, within him—he is made after the same fashion, has sprung from the same source, may inherit the same heaven as ourselves—he is our brother in the great pedigree of Nature, and has a brother's claim upon our regard!

This is a view which the philanthropist, just in his judgment, would take of his fellow-men. Nothing that appertains to humanity can be indifferent to the members of it. Every man's motto should be—

"Homo sum, nihil a me alienum puto."

Some people, however, require truths to be brought home to them, ere they comprehend these truths thoroughly. We have no idea that any of our readers are of this class, but, lest they should be, why then we drive home the awful truth at once, and ask them what they think of the destitute, dying condition of our Irish and Scotch neighbours? It is not necessary that in this place we recapitulate the horrible testimony daily afforded, of the increasing calamities in our two unfortunate sister countries; but, at least, we can find a column to ask, in bare charity, what can be done? We do not mean what can be done politically to advantage either place; with that question ourselves have nothing to do; but it becomes us to ask what can be done to serve the starving just now? The popular cry is going about most laudably amongst us, and we should be sorry, for ever, had we no voice in this appeal of charity. This is a work of beneficence which we regard as everybody's, and we have no desire to be numbered with those who forget to perform it. All classes and denominations of people are now astir to raise supplies to rescue starving thousands from impending death. From the Queen and the nobles; to the little children in charity-schools, are tributes flowing to supply the necessities of two destitute nations. Single contributions, and subscriptions in concert, are being made to the same laudable end. In all these things, we trust our own brethren are, as usual, amongst the foremost in promoting the great and good object. We have often said, and we repeat it with pleasure, that there is no class of men who render their fellow-men so many acts of charity as do the members of our own profession. Wherever benevolence is intended, there our bounty is astir. We hope, under the circumstances in question, it will be offered with our wonted liberality. In this respect, the clergy possess privileges that are



not ours. Each minister can appeal to his congregation, often a rich one, and capable of large benefaction on behalf of the poor; and in this way he frequently obtains ample sums, which testify to his eloquence and the liberality of his people. The medical man has no opportunities like these, though it may be his heart is not less charitable than that of his neighbour who is afforded more occasions of beneficence. Out of his own pocket the medical practitioner, for the most part, has little to give; for no man is more hardly worked or more poorly paid than he. Still, what little he can spare he does spare, and no man gives more generously. It may be a mite that he deposits, but it is magnified in the principle that suggests it. We hope that his usual sympathy is being exerted now, and that he is foremost in the ranks of the many who are striving in the behalf of their destitute fellow-creatures.

The resources of the medical man, however, do not limit themselves to his own person; as he is daily in contact with different classes and conditions of men, it is possible for him to quietly appeal to their generosity, and enlist their sympathies on the behalf of the destitute who need succour. The good done in this manner may be most extensive. For words suggestive of charity none have better seasons for than medical men; to them peculiarly belongs the opportunity of seeing their fellow-creatures overflowing with thankfulness for timely recovery from the invasions of disease. What better occasion than this to appeal to a heart thus thankful, for a real proof of its gratitude? What better object for the application of it than the destitute many who at this moment are in actual want of bread? It is possible, in this way, for the medical profession to do immense service to the suffering poor of Ireland and Scotland. On an average, there would be no difficulty in each practitioner collecting from his patients and friends, in the course of a fortnight, a couple of pounds. In this manner, ere a month be passed, the medical profession of the united kingdom might offer *sixty thousand pounds* at the shrine of this great popular charity. It might offer much more, were those who sit in high places to bestir themselves as they might, in a work wherein every man deserving the name should feel an interest. But, at a moderate computation, we might easily furnish the sum of which we speak. And why not? It would infinitely redound to our own credit, but more than this, it would subserve one of the grandest purposes that actuate our enterprise—it would benefit and bless our fellow-creatures! Then let it be set about at once, say we. Let no man consider this business another's, but let each man consider it his own. Let each regard himself as pledged to a certain sum, and devote himself to the providing of it, as best he can. In plain truth, the melancholy duty is *everybody's*, and let *nobody amongst us* fail in its performance! The task is light enough in its individual bearings: its united accomplishment will be a boon of inestimable benefit. We now throw out the hint for the collection—let this be started in good earnest, and it will doubtless soon be ended in good faith, for we are not in the habit

of doing our work by halves. Directly that the accumulated subscriptions are ready, let the announcement be made to us, and we will be at all the trouble of suggesting a responsible committee that shall receive the aforesaid, and forward the sum total in due course to the Government authorities. The handing forth of such a sum as we would fain have given, and as *the profession easily could give*, would be a proud day for it—a real red-letter day in the history of its many benevolent achievements. These have been often asked, and as often has the appeal had a noble answer; never was that appeal louder, or more lamentable, than now; it comes from thousands who have no help, no remedy, unless their more favoured brethren render it them! But whatever we do must be done at once, and in earnest; or many a grave will be made, which our timely aid might have delayed for many a year! Think of these things, ye, amongst us, who are in affluence—who are provided amply with the luxuries of this life, and in whose *extravagance* may be found a supply for the *extremities* of less fortunate humanity.

We feel assured our readers will not think this article out of place: it has a benevolent tendency, and therefore is *rightly*, though it may not be *strictly*, medical. The great charity it relates to is *our business*, integrants as we are of that large circle wherein brotherly love should have a constant continuance. We have felt that we could not do less than advocate in our columns this solemn, serious cause. It is awful to think of our fellow-creatures, all around us, dying for want of the food we are blessed with in abundance; happy, indeed, shall we be, to be humble instruments in their release from the miseries of starvation. It is really our duty to look into these things, and, as the monitors of society, to proclaim abroad human extremities, and the claims upon human exertion. Should what we have observed, and urged, tend in any wise to the object we desire, it will be a source of future gratification that we have written the above article in the cause of unostentatious charity.

#### THE PRESENT SESSION.

We do not expect that this session of Parliament will do much for Medical Reform. The dire famine which sits like a nightmare on the empire, and threatens us with untold calamities for years to come, offers, unfortunately, more than an excuse for Ministerial inaction on our wants. We have been long accustomed to stand the *last* of Ministerial suitors, and never stood on ground where, with less delicacy, we could press with importunity our now time-honoured prayers.

On the whole, we are not quite sure that the circumstance may not prove best for the professional interests. At this instant the medical body is not in the best possible condition for fighting a legislative battle to advantage. Their organization for either defence or effective vindication is not as complete nor as extensive as it should be, and as time, doubtless, will make it. We are, in fact, in a peculiar, almost a critical,

period in our agitation. After successfully repelling adverse legislation, we have arrived at the moment which is to decide whether we are to relapse into our former elements of dissension, apathy, and weakness, or to form that improved and more firmly knit combination which will secure *favourable* lawmaking. In this transition-state we have much more to gain by attending to our own organization, than by looking for it immediately to Parliament. We are not in a position to act on the Government with effect; and, if we added the truth, should subjoin, *we do not deserve so influential a position*. The chartered wrong done to the body of British Surgeons is yet an existing reality. Every hour is transmuting and hardening it into a vested right. The practical expulsion of eight or ten thousand gentlemen from their own corporation is submitted to with a meekness more than Christian—with the tameness of a degraded, rather than of an humbled, spirit. Under injustice and dishonour we have learned to be philosophical. The nice impulse of injured virtue and public spirit affects us not. Spread over Britain are ten thousand surgeons, the repining but (unmanned) and spiritless victims of one of the most extraordinary corporate outrages on record. Till there be a change here it is useless to look to Parliament. There is an initiatory, preliminary reform to be enacted—our own—before we seek improvement through the Legislature. Before going to the House, we have our own to put in order. Whatever may be the state of our feelings, our conduct at least is a eulogium on Brodie's Charter. Through the metropolis the surgical authors of the outrage are as much under professional patronage as ever. A consultation with the "Charter Councillors" is the rule, not the exception. Spaniels, we lick the hand that smote us. Pope says—

The lamb thy hunger dooms to death to-day,  
Had he thy reason, would he sport and play?

If not endowed with *more* than our "reason," we think he would. The poet ought to have seen our attitude in 1847, to comprehend with what resignation and equanimity even human brutes can at times look forward or backward to injury or outrage. The Provincial Association is virtually an association of the surgeons degraded by the College Charter. They are a voluntary body, and yet what is the lamb-like spectacle they present us? Their interest and influence in the political keeping of a Council in great part composed of Charter-made Fellows! Can spaniel submission to dishonour be carried further?

With such a state of feeling and morality abroad in our own body, we have abundant work to do without troubling Parliament, at least, specially on our account, during the present session. We are actually not worthy of a better system of reform than the corporations themselves would condescend to give us. Let us put ourselves right with honour and propriety before we demand right from the public. What is the use of the strongest of cases, if marred by our own delinquencies? The National Institute may show the Government the strongest grounds for Parliamentary interference, but while so many of those for whom



they act remain inert, or worse, what is it but inviting a fatal legislation, over which we neither shall have, nor deserve to have, control?

For these and other reasons we are of the conviction, that if ever there were a time when that organization of our body, commenced by the National Institute, should be energetically carried forward on one side and warmly supported on the other, that moment is the present. We have our own ranks to form and discipline, and we have a careful watch to keep over the movements of the enemy. Nothing but forcible and active measures on our side can prevent the question of Medical Reform from being settled in detail, away from us, and without our participation. The College of Surgeons has been already remodelled, not for us, as it might have been, but *against* us. *The College of Physicians is on the brink of a similar revolution.* The declaration of that body, recently published in our pages, seems to us unusually significant, and when we bear in mind the extensive and swaying influence of the principal officers of that body with the members of Government, as well as the notorious disposition of Sir George Grey to do something in Medical Reform, if a plain way appear to lie open to him, we do not doubt for an instant that six months apathy or acquiescence, or even non-opposition, of the profession, would be the certain purchase-money of a new Physicians' Charter. We have here, then, an important circumstance to deal with: for, whatever we may think of the good or evil of the proposed changes, one thing at least is clear, that no settlement, partial or general, of Medical Reform, should be allowed to be made to which we are not parties, and this the more, since in our scheme of general amelioration, we have concessions to *ask* as well as concessions to give. We have no idea of coming last to the legislative table to take exactly whatever may be kindly left us. The question of Medical Reform will want compromise and concession on every side to secure adjustment; and it will hardly be wise in us to wait, nay, to *arrange*, for a settlement, when, two-thirds being already done, we shall have everything to ask and nothing in our power to concede. It would be a disadvantage worth being guarded against.

#### THE MISFORTUNE OF A GOOD CHARACTER.

ALMOST every week, for more than a quarter of a year past, we have been amused, when not made more serious, by the diligent alacrity with which the pages of an humbled contemporary have been devoted to laudation of Marshall Hall and vituperation of Dr. Gregory. Aware of our friend's want of better materials, and of the recognised practice of interpreting him by contraries, and so reaching truth by the most compendious route, we should have passed by these harmless prolusions (so pardonable in *such* a quarter in *such* a crisis of public disasters)—with no higher homage than that of our accustomed silence, if the scene had not been somewhat diversified by the reappearance on it, in *proprios personis*, of our two old friends, Dr. Tyler Smith

and Dr. Dulwich Webster! "Ecce iterum Crispini!"

Now, against the laudations—even the most impudent—of Dr. Marshall Hall the *Medical Times* would be the last to interpose its veto. No man in Christendom needs them more; and if Dr. Tyler Smith, having the run of a journal for his pains, applies them with a spacious trowel and strong arm, it but proves that eaten bread is not *always* soon forgotten, and that the worthy gentleman has not yet relinquished the Horatian privilege imprescriptible to his organization—"Licet insanire."

Against the vituperations of Dr. Gregory, however, we have something to say, and that neither doubtful nor feeble. That, on no higher *pretence* (and that a *false* one) than a trumpety breach of etiquette under circumstances of the most peculiar character, a worthy and distinguished physician should have his private hearth weekly invaded by lacerating inuendos, tragical charges, and solemn condemnations; that the contemptible cause of such grave procedures should be, months after months, hawked through the profession as if, at the least, it had been the commission of some capital felony for mercenary considerations; that, under one miserable pretence or another, the subject must never be done with, but that such personal instruments as Dr. Tyler Smith and Dr. Dulwich Webster, under the farcical appellation of assessors, must be used to trump up, as practitioners, a fictitious importance to the nonsense they deliver, *assemi*-editors, and give effect, in private conclave, to supererogatory vituperation in public journals; that all this—so much—should be said and done, through a period of months after months, on a matter so utterly insignificant, is a thing so offensive to every principle and feeling that is just, and decent, and manly, that, at the risk of giving a moment's importance to things and persons wholly without any, we must record against it our strongest and most indignant protest. We should be ashamed of ourselves if we could look on so systematic a persecution of a worthy brother-practitioner with equanimity; and we do not hesitate to perform the duty which common honesty imposes on us, of denouncing its abettors to public opprobrium.

As far as we gather the facts, these persisting cruelties originated in a circumstance that occurred some five months since, when Dr. Gregory was called in to attend a patient then under the care of Mr. Wigan. In the calling in of Dr. Gregory there were circumstances of a most peculiar nature, under which neither the patient, the husband of the patient, nor the physician, considered the presence of Mr. Wigan desirable or necessary. His presence was not, therefore, invoked.

Now, we will not stay here to inquire whether there may not arise *circumstances* which may well justify, in some cases, the practitioner called in secondly from insisting on a consultation with the practitioner already in attendance, nor whether such circumstances existed in the case before us; but we do put it confidently, whether or not a public record of the fault—if fault exist—would not necessarily carry with it to the minds of reasonable men a sufficient amount of punishment? But *here* the fault is denied: if

committed, it was committed under a very natural misjudgment: how unjust, then, how unmanly, the continuous warfare it is made to justify!

The report of Dr. Tyler Smith and his friend, written four months after the commission of the "*crime*," has been placed before us. If we could forget the unlovely anxiety manifested throughout to injure and pain an eminent labourer in the field of professional utility, we should have read the document with considerable amusement. Dr. Tyler Smith, a physician so peculiarly situated as to be suffered to practise in London solely by the toleration of Dr. Gregory and the other Fellows of the College of Physicians—Dr. Tyler Smith, the writer and *anonymous dedicat*or of an *anonymous* "stammering" book to his brother-in-law, a "stammering" practitioner—Dr. Tyler Smith, the generous writer and donor of certificates to the stammering *miracles* performed by that "stammering" brother-in-law—Dr. Tyler Smith—but we forbear—he an authority, a *public* authority, on professional etiquette! *he* bearing down a distinguished physician by the weight of his assessor jurisdiction! Certainly, 'tis amusing.

This worthy reporter tells us, that when the affair of arbitration came on, Dr. Gregory, "at every new phase of the proceeding, was ready with some new excuse for not permitting the arrangement of the matter." Yet, he also tells us, that Dr. Gregory "offered" what of all other things in the world was most likely not only to "permit" but *enforce* an "arrangement of the matter"—"an apology," not only adequate, but more than that—"humble";—nay, more than that—"too humble." The fact appears to have been, that Dr. Gregory valued the matter in the ratio of its insignificance, and, finding that Dr. Wigan had just suffered the bereavement of his wife, handsomely wrote to him, expressing sympathy in his affliction, unfeigned regret at any misunderstanding between them, and offering an apology, *if* those who had undertaken the investigation should come to the conviction that a mistake had been made. So that, what is forwarded as an humble, and *ample*, and unreserved apology in one place, is proved to be but a *contingent*, conditional offer of apology, and under peculiar circumstances, in another. And these are the men who affect to decide on matters that concern professional honour!

But the whole of the report is of the same complexion, and beyond stigmatising it as full of hatred, malice, and all charitableness, we shall not trust ourselves to designate it, or the procedure of which it forms a part. We are withheld by respect for the decencies of our mother tongue. We must speak strongly, indeed, to do the matter justice.

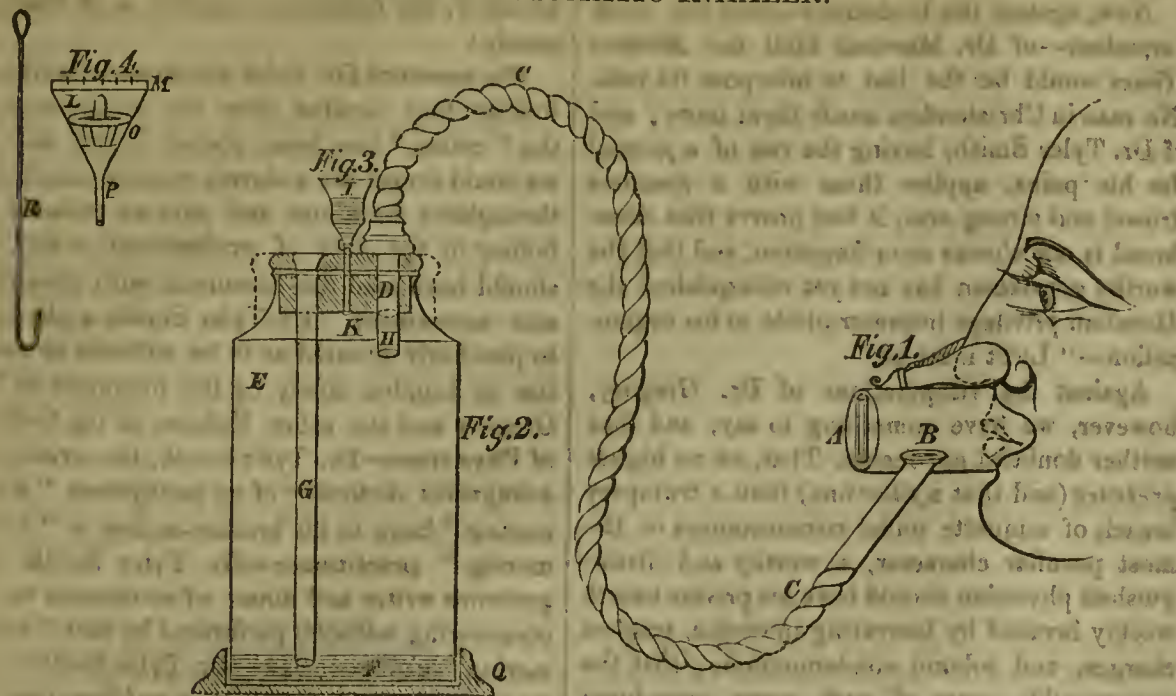
#### THE CRIMINAL INFORMATION.

THE argument on this affair has been again postponed, but there is a reasonable chance that it will come on in the course of this day (Friday). The *time* of taking the argument, as is known, depends on the wishes of the other side. Our next number will contain a full report.



The following DIAGRAM, DESCRIPTION, EXPLANATION, and DIRECTIONS, will serve to demonstrate the nature and modes of using

### STARTIN'S PNEUMATIC INHALER.



#### DESCRIPTION.

The inhaler, it will be observed, comprises four parts, viz.:—1. The inspirator or mouth-piece, with brass spring for compressing the nostrils; 2. The receiver and hot-water stand; 3. The injector; 4. The fumigator, heater, and hook.

THE INSPIRATOR is furnished with two valves of Hancock's vulcanized indiarubber, oiled silk, or other thin substance; one valve, *A*, opening without the cavity of the mouthpiece, protected by a cap and a valve, *B*, within its cavity. To the opening of the valve *B* are attached three or four feet of light flexible tubing, *CC*, which must at least be the size of the human windpipe; the tube *C* opens through a perforated stopper into the second part of the apparatus or receiver, *D*.

THE RECEIVER, *D*, consists of a three-pint or larger glass vessel, *EE*, to receive the vapour to be inspired, mixed with sufficient air for a single inspiration. A small quantity of hot or cold liquid, *F*, covers the bottom of the receiver, into which a glass or metallic tube, *G*, dips a quarter of an inch; this tube passes through the stopper of the receiver, and communicates with the air by an inverted conical opening. A second tube, *H*, also descends a few inches into the receiver, and is connected by the tube *CC* with the mouthpiece. The receiver is placed in a hollow stand, *Q*, which contains hot water, to be kept up to a temperature of 200°.

THE INJECTOR, *I*, consists of an inverted cone of metal, furnished near its apex with a small stopcock and injecting-pipe, *K*, which passes through the stopper into the receiver; the top of the injector is composed of very thin elastic metal, which yields to atmospheric pressure, so as to inject into the receiver, at each vacuum created by inhalation, a jet of ether or other liquid which is formed into vapour by the hot water, *F*, or decomposed, if the fluid be of a chemical nature.

THE FUMIGATOR, *L*, is to be substituted for the injector *I*, when it is desired to inhale matters requiring the agency of fire to render them volatile, as mercury, morphine, &c. It consists of an iron funnel fitted with a moveable perforated lid, *M*, and an iron heater, *O*, in its cavity, and ends at its apex in a small tube, *P*, to replace the pipe *K*, which opens into the receiver: it may also be inserted into the orifice of the tube *G* when it is desired that the inhaled matters should pass through water or other liquid. *R* is a small hook for placing the heater in the fumigator.

#### EXPLANATION.

The pneumatic inhaler acts by admitting into the lungs enough air for a single inspiration, mixed with a graduated quantity of the volatile matter to be inspired, the quantity is regu-

lated either by the stopcock in the tube *K* of the injector, or by placing more or less of the substance operated with on the red-hot heater in the fumigator. The vacuum created in the receiver by each inspiration of the patient will produce sufficient atmospheric pressure on the elastic top of the injector to cause a jet of ether or other volatile liquid, which immediately becomes vapour, if the temperature be above 105° F., at which it should always be maintained, as ether is not only evaporated at this heat, but driven from its solution in water, which dissolves one part in nine. When the fumigator is used, the substance to be volatilized having been placed on the hot heater, the air is drawn through the perforations in the lid, and the grooves that surround the heater, by the inspiration of the patient; carrying with it such portions of the substance to be inspired as the heat may have rendered volatile, and which becomes mingled in the receiver with sufficient air for a single inspiration. It must, therefore, be apparent that, whether the injector or fumigator be used, much accuracy is obtained in the inhalation of remedies, which may be inspired in greater or less quantity, at the option of the operator; and, if dry vapour be preferred, it is only necessary to leave out the water in the receiver. It may also be observed, as regards the two valves *A* and *B* in the mouthpiece, that *A* is the valve of expiration, and is always required to be in perfect order for a successful use of the pneumatic inhaler; but, when water is used to cover the lower end of the tube *G*, there is little occasion for the valve *B*, which is the valve of inspiration, as the water forms a valve of itself, preventing the descent of the breath; yet it is advised never to remove this valve, for, when the fumigator is employed in the place of the injector, it will be always required, as it is then necessary to place a cork in the upper orifice of the tube *G*, and empty the receiver of water; consequently, without this valve *B* the expired breath would descend into the receiver and prevent the proper action of the inhaler.

#### DIRECTIONS FOR USING.

The Pneumatic Inhaler.—Remove the perforated stopper, and pour into the receiver warm water (the temperature of which can readily be borne by the hand) until the bottom of the vessel is covered to the depth of half an inch. Replace the stopper, and particularly observe that the lower orifice of the tube *C* is beneath the water. Adjust the flexible tube *CC* to the opening *D*, fixing the inspirator *I* to its other extremity. Half fill the stand *Q* with very hot water, which will require occasionally to be replenished, as the temperature of the receiver and its contents must be kept up, as its bubbling will be a sure

index of the patient properly using the instrument. Fill the injector then with ether (which must be free from alcohol of sp. gr. 750) or other liquid, to be converted into vapour, and, having screwed on the stopcock, insert its pipe into the opening of the receiver *K*. Place the inspirator over the mouth of the patient by first adjusting his nose in the brass spring, and then depressing the instrument until it rests against his chin, where it may be retained by his own hand until insensibility comes on, when it must be taken charge of by the assistant; let the patient in the first instance take a few inspirations to habituate himself to the inhaler, without the substance to be inhaled; and, when he may be considered prepared, let down the ether or other liquid very gradually at first by gently turning the stopcock, more or less, according to the requirements of the case, or even press lightly on the elastic disc of the injector; let the inhalation be continued till insensibility comes on, which will be from one to five, or at most ten, minutes; the desired state once established, do not entirely remove the inspirator, but raise it from the chin, so as to let pure air be breathed from time to time. As a rule, three or four inspirations of air, and three or four of etherized air, will be sufficient to maintain insensibility.

Where other substances than ether are used for medical purposes, as iodine, bromine, chlorine, &c., the inspiration must be continual until the allotted dose is inspired. Where the substances to be inhaled require the red-hot heater to render them volatile, the fumigator must be employed in the place of the injector, and no water need be put into the receiver; the long tube *G* must be closed with a cork, and the valve *B* of the inspirator kept in its place and in order; thus inhalation may be carried on until the required quantity of medicated vapour has been inspired. N.B. If the receiver be used dry for inhaling liquids in vapour, the heat being only on the exterior, the valve *B* should be removed to the lower orifice of the tube *G*, which it is made to fit. When morphia, mercury, creosote, stramonium, opium, &c. &c., are employed, they should be mixed with some inert substance, as powdered pumice-stone or calcined stone-earth, and made with a little gum and water, into the shape of small thin palettes or lozenges, containing portions only of the dose to be inhaled, so that one such palette or lozenge can be placed from time to time on the heater in the fumigator to be volatilized.

It is intended shortly to publish a series of cases illustrative of the use of ether, as also of various other remedial agents, by the pneumatic inhaler, to which will be added testimony in its favour, from the highest members in the medical profession.

### ON INHALATION OF VAPOUR OF ETHER.

(From the *Gazette Médicale*.)

The experiments with ether for the destruction of sensibility during operations continue; but they proceed without order, regularity, or definite aim. It is undoubtedly a useful conquest, of which we cannot foresee all the applications; but, unhappily, it is the privilege of confused and mal-adroit persons to mar and obscure the most simple things. In what manner does it act? First, verify the fact by establishing its purely experimental reality, by ascertaining its conditions and laws; secondly, by determining the theory and physiological signification. Instead of this, what is really done? We have seen persons more desirous of mixing their names with what is popular and marvellous in this discovery, than of doing anything useful for science and humanity. The greater part of the trials hitherto made show strong signs of this unreflecting precipitancy; patients, who might have dispensed with operations, have been sacrificed to this desire of personal popularity; and instead of having produced precise, well-analysed results, have only furnished useless food for public curiosity, and pretexts for obstinacy and aspersion to persons



already jealous of all progress. Without doubt this is a part of the precipitation and infatuation inseparably attached to everything new. But it is to be regretted that serious men should favour this injurious tendency with the sole hope of seeing their names quoted in a journal, or bandied about in drawing-rooms. We, who have rarely the privilege of performing painful operations, do not pretend to solve the various questions connected with the subject, but we may be permitted to point them out to others.

It is certain that, in some instances, sensibility has been completely suspended; in others, incompletely; and in a third set it has completely failed. The first thing to be done, was to reflect on the differences of conditions and circumstances in the three cases. First, it was proper to ascertain the state of the patients; their age, profession, temperament, disease? At what hour of the day, and the length of time from sleep? Were they fasting, and how long? What apparatus was used? What quantity and quality of ether was employed? How long the inspiration was continued? Was the inspiration performed by the nasal or respiratory passages?—which causes a difference. We include the whole of these questions, to which we could add many others of a similar character, having for their object the establishment of the reality of the fact, and its conditions of fulfilment and variation. A second set of questions relate to the analysis of the fact itself. In those cases where the result was complete, were the patients in a state of sleep? Had they preserved their consciousness? Were they totally insensible? What has been the comparative state of animal and organic sensibility? Has the pupil retained its contractility? Was the mucous membrane of the nostrils still sensible? Was the muscular contractility still under the control of the will? Could it be excited by pinchings of the skin or other means? Where the effect was incomplete, which of these phenomena have remained, which disappeared? Has the stupefaction shown any differences in its different degrees of production and cessation? What have been the differences in succession and degree, regard being had to sensibility, contractility, and the intellectual functions? Lastly, is it the sensibility or the perception of impressions which has been suspended? Such is the useful and scientific programme we should seek to carry out, rather than run a race in the production of sterile and vulgar experiments. No one has yet proceeded on the plan we have indicated. Some persons who formerly noticed the soporific or intoxicating effects of the vapour of ether, have claimed in part the American discovery. What has happened to this, has happened to all discoveries. We have very little sympathy with these claims, they are usually founded in error and tend to injustice. In the present case it is easy to show that what had been hitherto observed of the stupefying influence of ether, had only a very slight and completely unperceived connection with the physiological fact which forms the basis of the new method. Now, what is this fact? The abolition or suspension of sensibility. Who has shown, who has said, that the vapour of ether causes insensibility, that we may pinch, prick, or cauterize persons subjected to its influence? If some physiologist, if some experimentalist, had ascertained the fact, there can be no doubt that he would have supplied the premises of the new method, and that this would be simply a corollary of his researches. But, unless the fact of the insensibility produced by ether has been stated in an exact manner, the premises and conclusions belong to the American surgeons; they have discovered the physiological fact, and they have applied it. As we have said above, all pretension to the contrary is at once an error and an injustice.

[To the Editor of the Medical Times.]

SIR,—I am desirous, through the medium of your columns, of laying before the profession my experience during the last fortnight with the vapour of ether. I have administered it to upwards of a dozen persons, and, with the exception of three cases, with perfect success. These three cases presented some peculiarities, and in one, symptoms of an alarming character, which must be my apology for giving

them in detail. Mrs. B., aged fifty-eight years, made application to me to insert an issue in her leg for the cure of an old standing ulcer situated over the spine of the tibia, a few inches above the ankle, and expressed a desire to inhale the vapour of ether, prior to its insertion. She did not appear at all timid, and began to inhale the vapour with the greatest confidence; after five or six inspirations, she suddenly became deadly pale, and stated that she was suffocating, and refused to continue breathing the ether; she had scarcely done speaking before she coughed violently for three or four times; the flow of blood to the head was instantaneous; she became quite purple in the face, the temporal veins were much distended, and the arteries throbbed violently; she was perfectly sensible, and complained of a sense of suffocation, and that she should die; she remained in this state for five minutes at least, when the face began to assume somewhat of its natural colour. I must confess I felt considerably alarmed for her safety, and was glad to observe her recover a little; she was a long time before she was able to leave my house, and, after she had been home about two hours, she had a fit, but, as I did not see her until some time after it was over, I am unable to say of what character it was; her daughter told me that she was "stiff and insensible for ten minutes." Although upwards of a fortnight has elapsed since she inhaled the vapour, she is far from recovered from the effects of the inhalation, complaining of a great deal of pain and confusion about the head, and oppression at the chest.

The next case was a boy, aged fourteen years, who wished to be operated upon for the relief of squinting. After having inhaled for a short time, instead of depressing him, he became furious, called out loudly, and we had difficulty in pacifying him. Finding that I could not succeed with him, I tried another boy, about the same age; it brought on a most distressing cough, which continued so long as he breathed the vapour; after a time it produced precisely the same effects as the nitrous oxide: he laughed most heartily, and looked quite idiotic. Of course it was impossible to operate upon either of them. After waiting half an hour I again tried them, but with the same results. I afterwards operated upon a man for cataract; also upon a girl, aged ten years, for strabismus; and extracted a tooth from a young man, with perfect success, after having subjected them to the effects of the vapour. They had no knowledge whatever of the operations, and suffered no inconvenience from the ether. One young man whose tooth I extracted stated that he was dreaming all the time "that it could not be true, that teeth could be extracted without pain." I have seen sufficient of the effects of the vapour of ether to convince me that it is a most powerful agent, and cannot be used with impunity indiscriminately in all cases. The utmost caution is necessary in its use; unless due caution be observed in the kind of instrument used, and the mode of administering it, I am afraid before long we shall hear of some casualty occurring which will effectually stop all further use of a most valuable means of deadening the sensibility of the nerves. The instrument I use is "Robinson's Inhaler," manufactured by Mr. Hooper, operative chemist, Pall-mall. The instrument is a most perfect and complete one for the purpose, and reflects great credit upon the inventive genius of Mr. Robinson, and also upon the skill displayed by Mr. Hooper in its manufacture.

I am, Sir, your obedient servant,  
EDWIN MORRIS, M.D. and M.R.C.S.  
Spalding, Jan. 21.

[To the Editor of the Medical Times.]

SIR,—I have much pleasure in forwarding to you the following case of lithotomy, performed under the influence of ethereal inhalation.

On Wednesday, Jan. 20, I was requested by my friend, Mr. Beales, of Halesworth, to accompany him to a case, in which he proposed to perform the operation of lithotomy, and to bring with me Robinson's ethereal inhaler, which I had just received from London, as he wished to try its effects. The patient was a healthy man, aged sixty-seven, who had suffered for five years from

his disease. Immediately upon our arrival we tried the effect of the inhalation upon him, and in one minute and a half he became so entirely insensible that we might have done anything to him without his being aware of it. At the end of one minute he awoke, and experienced no disagreeable sensation in consequence of it.

Having thus satisfied ourselves that the desired effect would be produced without injury to the patient, the operation was at once commenced. The patient having been secured in the usual way, and the staff introduced, I applied the mouth-piece of the inhaler and closed the nostrils; in two minutes he became perfectly insensible, of which I gave notice to Mr. Beales, who at once proceeded to perform the lateral operation, and, with his accustomed dexterity, at the end of four minutes, extracted a large stone, weighing two ounces and a quarter. As soon as the stone was extracted I withdrew the inhaler, and the patient awoke; he then stated that he was not at all aware of what had passed; that he had suffered no pain of any description, and that the first circumstance of which he was conscious was hearing one of the bystanders observe, "There is the stone!" which occurred at the moment at which he awoke; he has not had a single unfavourable symptom since the operation, and slept unusually well the two following nights, without taking any anodyne.

During the whole period of the operation I retained the inhaler in the mouth of the patient, but after insensibility had been once produced, at every fourth or fifth inspiration, I turned the stopcock of the instrument, cutting off the communication with the ether, and, at the same time, removing my fingers from the nostrils, allowed the patient to take two inspirations of common air, and thus, successively, till the completion of the operation: by this means the state of insensibility was kept up during the whole operation, and might, probably, have been maintained during a much longer period with perfect safety to the patient.

The ingenious apparatus constructed by Mr. Robinson appears well adapted for the continued exhibition of the ether, in consequence of the facility which it affords of proportioning the amount of ethereal inhalation to the effect produced, and of maintaining the desired insensibility without producing any injurious effects upon the patient.

I cannot conclude these observations without expressing a hope that the person who first suggested so valuable a remedy will not be lost sight of: for, if the accidental discovery that the juxtaposition of two pieces of metal produced an electrical current was sufficient to immortalize the name of Galvani, surely the name of the individual who first applied ethereal inhalation to the alleviation of suffering should be associated with a discovery so fraught with blessing to the whole human race.

I remain, your obedient servant,  
WILLIAM E. CRONFORT, F.R.C.S.  
Beccles, Jan. 23.

The inhalation of ether has been tried by C. Cotton, Esq., at the Lynn Hospital, and the results help to establish the fact either of its power to produce complete insensibility to pain; or an obliviousness of it, as the effect of the medicinal agent subsides. In the first case, a female with cataract, its influence was speedily produced, the operation completed, and the eye bandaged, before the patient recovered from her state of apparent unconsciousness. In a second case of cataract, of an old unsuspensible man, at least ten minutes elapsed before insensibility could be effected, when the operation was completed without pain, and the man almost immediately recovered his consciousness. In a third case, that of an old man with cancerous fungus involving the whole lower lip, a few inhalations sufficed to prepare the patient, and the lip was completely pared by the knife, without the slightest indication of pain or the least flinching. In this case the inhalation was again repeated, and during its influence a glass rod, dipped in strong nitric acid, was repeatedly applied to restrain the bleeding, which flowed rather freely from the incised part; a slight involuntary retraction of the muscles was only



observed, and the man on coming to himself said, that he had felt no pain, and it was only on the application some time afterwards of a ligature to an obstinately bleeding vessel that he first complained of pain. The apparatus used was an imperfect modification of the tube and bladder recommended by Mr. Herapath, Robinson's not being procurable at the time. The bladder was not inflated, but only washed out with hot water prior to the ether being placed in it. Mr. Cotton has also tried the ether vapour in private practice. In one case, during a painful operation, the most perfect composure and serenity were preserved. In a second case, boisterous, hysterical-like spasms followed, as observed by Professor Parker, requiring all the force of the bystanders to hold the patient. Further inhalation, however, served to effect the required degree of unconsciousness, and the operation was completed without the knowledge of the patient or the slightest indication of pain.

At the Newcastle Infirmary, Mr. H. G. Potter performed two operations:—one, an old man with fistula, the other a young woman suffering from diseased bone. In both cases the vapour of ether was tried; a new apparatus (such as is used, we believe, by Mr. Robinson, of London) having been procured. As soon as the patients were under the peculiar influence of the ether, the operator very quickly performed his duties, and evidently without causing the slightest pain in either case. Mr. Potter remarked that he believed there was no danger in the administration of the vapour of ether, except in persons who were either labouring under inflammatory conditions of the brain or lungs, or predisposed to certain affections of those organs, or in very young children. He thought its action was twofold: first as a stimulant, and afterwards as a sedative.

## MISCELLANEOUS CORRESPONDENCE.

### SPONGIO PILINE.

(From the *Provincial Medical and Surgical Journal*.)

SIR,—Having seen Markwick's patent spongio piline advertised, I ordered some of it to be procured, and feel bound in justice to state that it has proved remarkably beneficial, as well as comfortable, to a patient of mine who was suffering severely from acute bursal rheumatism, affecting several of the joints. I ordered it to be steeped in warm spirit lotion, and kept constantly applied; and am so entirely satisfied with the result, that I venture to recommend its employment to the readers of your valuable journal.

I have the honour to be, Sir,

Your obedient servant,

J. C. BADELEY, M.D.  
Chelmsford, Dec. 26, 1846.

### NOTE FROM DR. KNOX.

[To the Editor of the Medical Times.]

MR. EDITOR,—Have the kindness to state in an early number of the *Medical Times*, in reply to the question of "Justus" and of other friends, that I have no intention whatever of abandoning the course of Lectures on Physiology and Physiological Anatomy, commenced some time ago in your journal. For a considerable period my leisure has been wholly occupied with preparing the course of lectures on the "Races of Men," which I had engaged to deliver in various philosophical institutions. This course of lectures I shall immediately have the honour to place before your readers and subscribers, if agreeable to you; after which I shall resume, without further delay, the publication of the lectures kindly inquired after by your correspondent.

I have the honour to be, Sir,

Your very obedient servant, R. KNOX.

## SLANDER.

[To the Editor of the Medical Times.]

Dr. Gregory presents his compliments to the editor of the *Medical Times*, and begs to say that he has just received the express directions of the President of the Royal College of Physicians of London, to offer no reply to the document which has been published bearing the signatures of George Webster and Tyler Smith.

31, Weymouth-street, Saturday, Jan. 23.

## OBITUARY.

On Sunday, the 27th of December, 1846, at Stonewall-park, Penshurst, Kent, the seat of Edmund Wakefield Mead Waldo, Esq., James Johnson, Esq., Surgeon-Major, late 1st or Grenadier Regiment of Foot Guards, aged 52 years.

The subject of this notice was born on the 4th of June, 1795, near Inniskillen, county Fermanagh, Ireland. He evinced an early predilection for the medical profession, and commenced in the Dublin schools, under the auspices of the celebrated Surgeon Kirby, those studies which were completed at St. Bartholomew's Hospital, London, under the late Mr. Abernethy.

In March, 1813, Mr. Johnson passed an examination as regimental surgeon, before the Royal College of Surgeons, in London, and on the 25th of the same month was appointed hospital-assistant. On the 20th of July, in the same year, he was gazetted Assistant-Surgeon in the 102nd (afterwards the 100th) Regiment of Foot. On the 9th of August, 1813, he joined his regiment at Bermuda, and, in June of the following year, proceeded with it to North America, where he remained until October, 1817. On the 15th of May, 1818, he was placed on half-pay, on the reduction of his regiment; and on the 25th of the same month, in consequence of the exceeding high character of his testimonials, was appointed Assistant-Surgeon in the 1st or Grenadier Regiment of Foot Guards. On the 25th February, 1819, he was again placed on half-pay, on reduction.

Mr. Johnson now returned to his native country, and stood successfully a most severely-contested election for the dispensary of Manor Hamilton. He did not long hold this appointment, having been called, on the 23rd of Nov., 1820, upon full-pay of the Grenadier Guards. On the 13th of March, 1828, he was promoted to the rank of Battalion-Surgeon, and, on the 17th of April, 1840, to that of Surgeon-Major. Having completed his full period of service, he retired on the 7th of February, 1845.

On his retirement, the medical officers of the Household Brigade, at a dinner given him on the occasion, Feb. 12th, 1845, presented him with a silver tea service, "as a testimony of the high esteem and regard in which he was held by them, and expressive of the deep and lasting regret they felt at parting with so valued a friend."

Whilst the medical officers of the brigade were thus testifying their respect and sorrow, the commanding officer of his own regiment, not less sensible of the loss the regiment had sustained by his retirement, issued the following regimental order:—

"REGIMENTAL ORDER.—Feb. 8, 1845.

"The retirement of Surgeon-Major Johnson being notified in yesterday's *Gazette*, Colonel Clive cannot allow Mr. Johnson to quit the service without returning him his best thanks, and expressing his regret that the Grenadier Guards should lose those services which have so long been devoted to the benefit of the regiment.

"Colonel Clive feels assured, and begs to convey that assurance to Mr. Johnson, that every member of the regiment—those who have themselves been indebted to Mr. Johnson's skill, kindness, and attention, and those who have witnessed those qualities in his treatment of others—will unite with their Commanding Officer in offering to Mr. Johnson their best wishes for his future welfare.

(Signed)

"ALEX. GORDON, Adj. Gen. Guards."

As an officer, Mr. Johnson commanded, by his manly and straightforward conduct, the respect and veneration of those over whom he was placed. If he did not exact of his subordinates a rigid performance of their several duties, he yet, by the scrupulous discharge of his own, set them an example which they could not fail to follow.

As a medical man, his perceptions were keen, his diagnoses accurate, his judgment matured, and his treatment vigorous and successful. No private consideration was allowed, even for an instant, to step in between him and his duty. The welfare of his patients was his first care. His anxiety for their recovery was unbounded. Hour after hour, day after day, night after night, was he to be found at the bedside of the sick and of the dying, ministering with the most unwearied solicitude to their every want, not only as their medical attendant, but as their kind and tender nurse.

Mr. Johnson's intellects were of the highest order, and his judgment sound and matured. He possessed in an eminent degree the faculty of analyzing the most complex subjects, and, by a kind of intuitive and inherent power, stripping them of all their difficulties and subtleties, and reducing them to the level of the meanest capacity. He exhibited the most undaunted courage, the most unflinching straightforwardness of purpose, a high and manly bearing, a keen sense of honour, with an ineffable contempt and loathing for the slightest deviation from the strict line of gentlemanly conduct.

Mr. Johnson, though naturally of retiring habits, possessed strong feelings, a warm and generous heart, a kind and gentle amiableness of disposition and character, which secured for him the friendship and regard of all who knew him.

As a friend, Mr. Johnson is mourned by a large circle by whom he was esteemed, beloved, and idolized.

Mr. Johnson did not long survive to enjoy the ease and retirement of private life; he sank from repeated attacks of hæmatemesis, from visceral disease, the consequence, in all probability, of typhus fever, of which he was the subject in January, 1833, in common with many of the men of his regiment, which was then quartered in the Tower of London.

The first symptoms of the fatal disease, under which his athletic and robust frame subsequently sunk, made their appearance during some gymnastic exercises in which he had been indulging at Greenwich, in August, 1844. After a sudden fainting, he passed inkly discharges from the bowels, which continued for many months.

In May, 1845, he had just reached Inniskillen (from England), when he complained of chilliness. During the night he vomited several pints of florid blood, and passed a large quantity of dark blood *per anum*. The hemorrhage from the stomach and bowels continued, with almost unabated violence, for five days and nights, when it suddenly ceased.

From this attack he was slowly recovering and had reached his home, Swanlinbar, when in June the hemorrhage returned as violently as before, though its duration was much shorter.

The consequence of these repeated losses of blood was anasarca and ascites, to an extent threatening suffocation. The opinions of the highest medical authorities in Dublin confirmed the views of his medical attendants, that the operation of paracentesis should be had recourse to without delay, but to this he objected on account of the extreme tenderness of the abdomen on pressure. Eventually, the kidneys carried off the effused fluid, and he regained a moderate share of health, and returned to England.

In August, 1846, when at Brighton, he became the subject of jaundice, which continued more or less during a period of three months. During this time the alvine dejections were, for the most part, slate-coloured, and the urine of a deep saffron hue.

On the 29th day of October, when at Stonewall-park, he vomited, without any previous disposition, two pounds and three quarters of



florid blood. Another similar vomiting followed twelve hours afterwards, and at the expiration of thirty-eight more hours, he suddenly fainted. The pulse was lost at the wrist, and he appeared to be dying. This attack, which was unattended by vomiting, was followed by a large discharge of blood *per anum*. From this he again gradually rallied, and was enabled to take gentle exercise in the park. His appetite and spirits returned, and he flattered himself he might yet do well. But on the morning of the 14th of December he suddenly fainted, whilst eating his breakfast, and some hours afterwards voided, *per anum*, a large quantity of coagulated blood, resembling black-currant jelly. About four o'clock in the afternoon of the 24th of December, whilst eating his dinner, which consisted of fish only, he again fainted. At eleven at night vomiting of dark fluid blood commenced, which continued with little intermission until five A.M. of Christmas-day. The vomiting returned at two P.M., and lasted for about an hour. From this time he gradually sunk, and died at half-past four P.M. of Sunday the 27th of December.

An examination of the body was made on the morning of Monday, the 28th, sixteen hours after death, by his relative Dr. Dundas, and Dr. Pickford, formerly of the Grenadier Guards, when the following appearances were met with. On opening the abdomen, the diaphragm was found flaccid and hanging down into the cavity of the abdomen. The spleen was enlarged bloodless, and firmer than natural, and its capsule about one-third of an inch thick; this organ was adherent to the diaphragm and lining membrane of the costæ.

The liver was somewhat smaller than natural, and in a state of genuine cirrhosis throughout. The lobulus spigelii was the least affected—this organ tore under the finger; the gall-bladder was full of healthy bile; the liver was firmly bound to the diaphragm, and to the lining of the costæ, by fleshy bands. The ascending portion of the colon was firmly adherent to the inferior surface of the liver, and sent a solid band into the fossa umbilicalis. There was no communication between this bowel and the liver. The stomach was opened throughout, and the duodenum and jejunum, but nowhere could any ulceration or open vessel be discovered.

The exsanguined condition of the viscera militated against any opening of a vessel being found. The aorta was actually empty, a perfect "air-tube," as well as the veins. There was not blood enough left in the body to soil a cambric handkerchief.

The whole of the viscera were removed from the body, and upwards of two hours occupied in their examination.

Lungs healthy; heart empty and flabby.

Mr. Johnson was buried on Saturday, the 2nd of January, 1847, in the chancel of Hever Church, Kent. His body was followed to the grave by a large number of old and attached friends and brother officers; the pall being borne by three officers of his own regiment, and by the Surgeon-Major of the Scots Fusilier Guards.

#### GOSSIP OF THE WEEK.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, Jan. 22:—S. M. C. A. A. Smith, J. Goodlad, J. L. Johnston, E. D. Allinson, T. Bridgwater, A. G. Willington, H. G. Grayling, G. R. Skinner, C. H. Dunhill, J. Hyslop, W. E. Hughes, J. Bucroft, C. W. Wray, W. A. Salmon, W. Weston, W. F. Tomkins, T. H. Tanner.

ROYAL COLLEGE OF SURGEONS.—The appointment of Professor of Surgery to this institution, vacant by the resignation of Mr. John Flint South, caused by severe indisposition, has just been conferred on Mr. James Paget, the warden of the collegiate establishment in St. Bartholomew's Hospital.

THE CAVENDISH SOCIETY.—A new society on the plan of the Parker, Camden, and Sydenham

Societies, is about to be established, under the presidency of Professor Graham, for the publication of valuable works on chemistry. The subscription will be one guinea annually, and it is proposed to publish three volumes each year. Among the works proposed for publication are the "Life and Writings of Cavendish," Gmelin's "Chemistry," Kopp's "History of Chemistry," Otto's "Economic Chemistry," Berthier "On Assaying," a volume of memoirs and tracts on Chemical Philosophy, and a similar volume of papers on Animal and Vegetable Physiology.

MORTALITY OF ENGLISH TOWNS.—The mortality of England is 1 in 45; that of the metropolis is 1 in 39; of Birmingham and Leeds, 1 in 37; of Sheffield, 1 in 33; of Bristol, 1 in 32; of Manchester Union, 1 in 30; of Liverpool parish, 1 in 29.

Dr. Branson relates an interesting case of ascites, in which an immense number of hydatid cysts were evacuated with the fluid by paracentesis. The disease was removed by the operation, and did not return until more than five years after, when it was removed a second time by a similar operation.

Dr. Bellingham gives a decided preference to the treatment of aneurism by compression, for the following reasons:—1st. That the mode in which consolidation of the aneurism is brought about by compression is exactly the same as that in which a natural or spontaneous cure occurs. 2nd. Because, when a cure is effected by compression, the vessel is obliterated merely at the site of the aneurism; whereas when a ligature is applied in the usual situation, at some distance from the tumour, the artery is obliterated, both at the seat of the ligature and at the seat of the aneurism. He looks upon the treatment by compression as safer than that of ligature.

The late High Sheriff of the county of Brecon, the late Mayor for the borough, and one of the present Coroners for the city of Brecon, are medical men, members of the Royal College of Surgeons of England. It has been an immemorial custom in the county of Brecon to have one of its coroners a medical man.

IMPORTANT TO MEDICAL MEN!—Medical profession. Wanted, in a lunatic asylum in the country, a Medical Superintendent, between thirty and forty years of age, and a member of the Established Church. Salary £50, with board, lodging, and washing. Application by letter only, stating qualifications, &c., to be made before the 1st of February next, to A. Z., 64, Charing-cross.—See *Times*, Jan. 23.

Wanted, as head butler, in a gentleman's family at the west end of town, a respectable middle-aged man, well acquainted with the duties of his office. Salary £60 per annum. Address to A.Z., 64, Piccadilly.—See *Times*, *passim*.

#### MEDICINE MADE INTERESTING.

The following advertisement appears in a recent number of the *Silurian*:—

"St. EDWARD 'the Confessor's' CO FIBRIL RESPIRATIVE-TOUCH. Saint Edward .&c., maintained for skin-cures, as SCROFULA, A. D. 1051, that the thread like, air nerve fibrils, from the brain, seat of sensibility, to and down the sides of fingers & toes, to their end-points in *Death* became joined. That during health, these tubular fibrils—intuitively touch—in antagonistic 'cor'-response, as 'touching together' in second-time, for balanced *animated* locomotion. Hence, by this Physiological insight 'varicose veins change colour within the 'hour,' by the OXYDE of BEES' WAX, for flame-vacuum dilation of these fibrils in Scrofula. On lactic acid offset; the agonized Mother regains each ~ 15 ~ lest breast-milk-jets for babe,\* in comet-like cause. Contractions of 'Limbs' through chill, &c., are eased on renewing antagonistic muscular-elasticity, as in the case of the Earl of Derby in 1845, and Dr. King's (right hand for 'writing') at 'Queen's Coll.' Cambridge, when paralysed.

"References will be given, on taking ADVICE, from 6 to 8 A.M., & 11 to 12 daily, for outing of fire-damp sufflation gas, and all 'incurable' consumptive like cases.

"\* If born purblind, the Eyes in 27 days, 'un-shell' a skin.

"'Life,' Restoration after 'Railway nervous Shock,' by special request, address to C. Ackerley, Esq., 5, Swallow Street, Quadrant, London.

"N. B. For Cure, none need repine, as tranquil SLEEP is a consequent, to Asthmatic's on 're-lification' of the blood at the four seasons. .&c.

"Zodiac *Virgo* 30A. *Tacit. His. iv. 81.*

"A marriage-ring, etc. suspended (three inches from the right fore-finger and thumb) over a tumbler glass, ~ oscillates hourly in 'tranquil' health, the last hour night and day: as the fibril touching proof—in unison to every 15 degrees of the passing shadow on a Sundial, graduated to 360 degrees—the horizontal circle."

THE LONDON MEDICAL DIRECTORY FOR 1847. CHURCHILL.—We notice with pleasure the appearance of this useful annual. The Directory for 1847 is much improved, and the editors appear not to have overlooked the suggestions which have appeared in our pages. Altogether, the "London Medical Directory" is so creditable a production that we shall revert to it more fully when in possession of its sister production, the "Provincial Medical Directory."

OBITUARY.—On the 22nd inst., at Burton-upon-Trent, John Spender, Esq., M.D., in the 77th year of his age.—On Monday, the 25th inst., at Denmark-hill, John Buxton, Esq., M.D., of Brownlow-street, Bedford-row, in the 28th year of his age.

APOTHECARIES' HALL.—Gentlemen admitted members on Saturday, Jan. 21:—George Wilms-hurst and William Sutherland Meek.

SCARCITY OF PROVISIONS IN ADEN.—We are sorry to hear that our countrymen in the barren colony of Aden have been suffering from want of vegetables. Our last advices from that colony state that provisions of this kind are obtainable with difficulty from Arabia, and are mostly obtained from Bombay.

THE PRICE OF BEER.—It was stated by the Chancellor of the Exchequer that the London brewers had raised the price of porter twelve shillings a barrel. This is not true. The advance has only been five shillings a barrel, or rather less than one halfpenny a quart. The additional advance has no doubt, in many instances, been made by the retailers.

#### MORTALITY TABLE.

For the Week ending Saturday, Jan. 23, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1225	1068
SPECIFIED CAUSES...	1217	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	151	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	111	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	163	170
Diseases of the Lungs, and of the other Organs of Respiration....	531	354
Diseases of the Heart and Blood-vessels.....	54	32
Diseases of the Stomach, Liver, and other organs of Digestion.....	78	70
Diseases of the Kidneys, &c.	14	8
Childbirth, Diseases of the Uterus, &c.	17	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	11	7
Diseases of the Skin, Cellular Tissue, &c. ....	4	2
Old Age.....	65	81
Violence, Privation, Cold, and Intemperance.....	18	30



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## ORIGINAL LECTURES.

## A COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the Theatre of Queen's College, Birmingham.

By SAMUEL WRIGHT, M.D.,

Physician to Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; Physician to the General Dispensary; Extraordinary Member, and formerly Senior President, of the Royal Medical, Royal Physical, Hunterian Medical, and Cuvierian Natural History Societies of Edinburgh, &c.

*Summary and object of generalities already treated of; special clinical business; epidemics of 1846; common ailments of the spring season, and complications of them; autumn fever and its complications; appearance of bowel complaint in the spring of 1846; varieties and complications of it; symptomatic and idiopathic; circumstances under which it proved fatal; illustrations; symptoms of this diarrhoea; variety of fæces, and analyses of them; composition of certain of them—barmy, green, and rice-water evacuations; nature of the vomited matters; terminations of the diarrhoea; dysentery in the spring and summer of 1846; varieties of it; idiopathic and symptomatic; difference between bilious and bloody stools; mode of discriminating them; vomiting in this dysentery; matters ejected.*

GENTLEMEN,—I have now said all I have to say on the generalities of clinical medicine. I have introduced these things in a preliminary form, so that they may be in some sort a guide to you, during the further period that you prosecute your practical studies under my personal superintendence.

I took occasion, at the commencement of this course, to tell you that I wished my introductory observations to be regarded, not for themselves alone, but for the further and more valuable truths to which I hoped they would direct your attention, and which, also, I hoped they might aid you in acquiring. Let me once again impress you with the fact, that all I have heretofore said in this class-room has been with the simple object of giving you an estimate of how valuable is clinical experience, and how it is best to be obtained and applied.

I have now to proceed with the more special and direct duties of this chair. But before considering the cases which have been treated in the hospital, and under your immediate observation, it will perhaps be well for me to say something concerning the epidemic diseases of last year, with which Birmingham was visited somewhat roughly. They involve some pathological considerations not uninteresting, and, moreover, their detail, with a practical commentary, may not be without its usefulness in your future medical career.

You are aware that in the spring season, simple fever is apt to be prevalent. People say "it is a cold that is going about": it is chiefly characterized by alternations of heat and chilliness, impaired appetite, listlessness, thirst, frontal headache, pale furred tongue, dry skin, and quick, weak, irritable pulse. These things will commonly pass off, unassisted, in the course of from a few days to a fortnight; but sometimes they

linger, and require a little attention to diet, and the aid of aperients, febrifuges, and alterative doses of some mild mercurial. Occasionally this spring affection occurs in a severer form, and is suggestive of ailments of a specific type. In one town, there will be simple fever, seemingly uncomplicated, whilst in another, perhaps a near neighbour, typhus in its worst character will be prevalent. Elsewhere, scarlet fever will be raging; in another spot, influenza; and in others, smallpox, measles, hooping-cough, and the like. Even in the same town, though in different parts of it, two or three of these diseases will often prevail at the same time.

In the autumn, again, simple fever is not unfrequent, and it is apt, like the spring variety, to acquire certain complications, or to lead to ailments more definite in their type, and more serious in their tendencies. Of these, the chief are diarrhoea and dysentery. A peculiarity in the epidemic visitations of 1846 was the reverse order in which they came—for we had the diarrhoea and dysentery in the spring and summer, and the fever, in its several varieties, in the autumn and commencing winter.

It was about the latter end of April, last year, that the bowel complaint made its appearance in this town. The previous part of the spring, and indeed the whole winter, had been unhealthy: adynamic fever was common, and smallpox was more general and more fatal than is usual at such seasons. The simple diarrhoea, as it was first manifested, appeared to be a result of the fever, for it only occurred (to my own observation) in subjects that had previously suffered from "cold," as they called it. In some of these the fever was perceptibly heightened on the advent of the diarrhoea, and yielded less easily to treatment; in others the type of the fever was changed by it, the pulse becoming quicker but more feeble, the tongue dry and dark-coloured, the strength much reduced—the tendency being clearly to a typhoid condition; in others, again, the purging appeared to be salutary, and to constitute a crisis of the fever. In several instances, indeed, it proved completely curative, all unpleasant and untoward symptoms subsiding almost directly that it came on.

As the spring advanced, this diarrhoea manifestly increased; and though in many instances it was evidently consecutive of fever, in many more it plainly originated from other cause than this. Still the cause was not evident. We had, then, two varieties of the intestinal affection: one *symptomatic* of fever, the other *idiopathic*, so far as we could judge. The latter, in the majority of cases, implicated also the stomach, and epigastric tenderness and nausea were concomitants of the diarrhoea. In this form the ailment was seldom severe, and very seldom intractable, except in old people, or in such as had been disordered or debilitated by previous circumstances. In a few cases of this kind the powers of life were quickly reduced, and the patient sunk without affording any chance of being saved. In particular, I may mention a case in the *post-mortem* of which I assisted Dr. Mackay. The subject was a man in about middle life. He had suffered from dyspepsia of several weeks' duration, frequent nausea or vomiting, and diminished appetite. He improved, however, under treatment, but was one day suddenly seized with profuse purging, which resisted all remedies, and killed him in less than twelve hours. The body had a wasted, exsanguined appearance, but was otherwise not unhealthy, except in its gastric portion. The cardiac extremity of the stomach was strongly marked by injected vessels, which were conspicuously arborescent all over it. The mucous coat was thin and easily detached with the scalpel, and the muscular texture was finer and less firm than natural. The pyloric orifice was somewhat contracted, and the membrane, to some extent around it, had a dusky red tinge. The stomach contained four ounces of greenish fluid, chiefly bile. The intestines were, here and there, slightly patched with vascularity, but otherwise presented no morbid aspect. In this case

the man simply sunk from exhaustion, caused by sudden, and rather profuse, purging: this would probably have done nothing more than debilitate him for a time, had he been in previous good health; but, weakened as he was by impaired nutritive function of some duration, he was prostrated at once by the discharge, and the shock of its suddenness, and had no power to rally.

In another case which I inspected with Dr. Moffatt, of Erdington, the man, about forty years of age, died after a few hours' purging, by no means severe. The only morbid appearance was dilatation of the heart, especially in the right auriculo-ventricular opening, and extreme thinness of its parietes. So thin was the right auricle that it was quite a wonder how it could have contracted upon its contents. This man's life must have long been in jeopardy; and we can easily understand how any debilitating cause, mild though it might be, would paralyse the functions of such a heart as he had.

With exceptions furnished in cases like those above, and in other such, I am not aware that the simple diarrhoea I am speaking of had any fatal tendency or termination.

Its periods of accession were irregular, but were chiefly early in a morning, or shortly after breakfast, or after dinner. A little twisting of the bowels, with or without antecedent nausea, was the first sign, and was shortly followed by an urgent desire for evacuation. This, at first, generally consisted of solid fæces, intermixed with other matter, more fluid, but still distinctly fæcal. After this, the repetition of the intestinal action was very variable; in some cases occurring not more than half a dozen times a day, in others as often in the space of an hour. These dejections were not constant in their character. The most frequent was a frothy motion, looking exactly like yeast. It was not commonly offensive—sometimes I observed it to be almost odourless—and it was not deficient in bile, but this seemed to be of a poor quality. These fæces appeared to be chiefly composed of bile and intestinal mucus. By agitating a portion with twice its volume of alcohol, the mucus, though not coagulated as it would have been if thus treated alone, was yet sufficiently thickened not to pass through filtering paper. If thrown upon this, and exhausted with further additions of alcohol, the colouring and other matters of bile, soluble in this menstruum, passed through, and were obtained free from extraneous mixture. On evaporating these solutions to dryness, it was found that they afforded scarcely less biliary matter than should have been contained in the original fæcal fluid, but it was not deepened to an ordinary extent on the addition of nitric or muriatic acid. The substance left upon the filter was not capable of diffusion through water, seemingly in consequence of the action of the alcohol, but, after agitation in water, rendered feebly alkaline with caustic soda, it formed a mixture whose chief ingredient presented all the ordinary characteristics of mucus. This barmy kind of evacuation, therefore, I consider to have been mainly composed of an inferior kind of bile and intestinal mucus. Other of these fæcal discharges were, for the most part, bile itself, and of a good quality, uniformly liquid, nearly odourless, bright yellow, and imparting a distinct turmeric sort of tinge to writing paper. These fæces were uniformly *alkaline*, but others were *acid*, and were chiefly distinguished by their grass-green colour. This, I have no doubt, was occasioned by the bile being acted upon by some acid secreted by the stomach, or intestines, or both; for I produced exactly the same appearance by adding a small quantity of nitric or muriatic acid to the yellow bilious stools. In some rare cases of this diarrhoea, the dejections were pale, like rice-water or thin gruel. This appeared to be owing either to an excessive secretory action on the part of the intestinal mucous membrane, or to a simple straining, or transudation, through the coats of its bloodvessels, of the watery part of their contents. In the one case a very dilute form of mucus was produced, in the other the



serum of the blood was set at liberty. Occasionally these happened in concert. It was proved thus:—A portion of this form of dejection, diluted with an equal volume of water, coagulated on being boiled: the solid material was albumen, which, though it may *escape* by a mucous membrane, cannot be said to be *secreted* by it. The probability then is, that the albuminous portion here referred to was owing to the serum that had directly transuded through the coats of the intestinal bloodvessels. This solid matter having been removed, the remaining liquid portion did not become semi-solid when exposed to a certain cold—therefore, it contained no gelatine: there was only one other thing it could be—it exhibited a particular aspect under the microscope, it was precipitated by infusion of galls and diacetate of lead—it was mucus. These evacuations, then, looking like thin gruel, or rice-water, consisted of dilute mucous secretion, or serum, or both—the first being the most common; the last, next so.

Nausea was almost invariable in these cases, and it not unfrequently extended to vomiting, usually simple and not of long duration, but occasionally severe and continued. Food, of course, was rejected when the stomach had any to part with; and, under other circumstances, a fluid would issue like that of pyrosis, and rarely consisting of more than mucus. Sometimes a bright yellow bile would be discharged, alkaline in reaction; and more seldom a thin greenish fluid, seemingly nothing but dilute bile discoloured by acidification.

The action of the bowels was rather urgent than painful; there was no tenesmus; and the evacuation having fairly occurred, there was no subsequent straining, or desire for further action, until the accumulation of fresh matter prompted it. The nausea, on the contrary, was often very persistent, without any vomiting; and, this over, a straining would frequently continue, though there might be nothing for the stomach to expel.

There was generally some symptomatic fever, increasing towards evening. The tongue was usually more pale and dry than natural, except at its tip and edges, where it was commonly red and moist. The condition of the skin was variable; at one time being dry and hot, and harsh; at another, soft, relaxed, and bedewed with moisture. So also did the secretion of the kidneys vary—sometimes copious, and at other times deficient, yet without any particular pathological conditions of which it could reasonably be supposed to be the cause or the consequence. So much for the manifestations of the idiopathic diarrhoea, as it appeared in this town, in the spring of last year. The items I have given you I do not report as compassing all the pathognomonic features it presented; but I believe I have given you the chief. There were, of course, many little exceptions, of no leading importance, but numerous enough to occupy a whole lecture in their detail, had we nothing of more significance to discourse upon.

In many instances this diarrhoea ran an unchecked course, and terminated spontaneously; in others it was arrested by the timely aid of medicine; and in others, again, it extended itself into dysentery, or into cholera, as it was called. Later in the year, many of its subjects degenerated into a typhoid state, or into one of simply low nervous fever, of which we shall speak in subsequent lectures.

The dysentery made its appearance some weeks after the advent of the diarrhoea, and, like this, presented two varieties. Of these, one was plainly an extension, or a *sequela*, of a pre-existent intestinal disturbance; the other occurred without the previous manifestation of any morbid action of which it could be presumed to be the result.

In the first of these cases, the diarrhoea simply became worse until decided symptoms of dysentery set in. The purging did not become more copious or more frequent, but it became more forcible. This was intensified, the dejections

generally decreasing in quantity until it at last terminated in severe tenesmus. Unequivocal mucus was now passed, singly or tinged with blood. The latter was sometimes discharged alone, and of so dark a colour that a casual view of it would not tell whether it were blood or vitiated bile. In cases of this kind, an extemporaneous proof, not often faulty, is furnished by smearing one side of a slip of white paper with the suspected fluid. If it be bile, the edges of coloration, in reflected or transmitted light, will display a greenish or olive tinge, which will be rendered more apparent by dipping the paper in a dilute solution of caustic soda; if it be blood, the coloured edges will have a purplish or reddish tinge, capable of being darkened, or rendered completely black, by being subjected to the above-mentioned alkali. I am not aware of this test having been mentioned before, but I confidently submit it to you as the result of my experience, not inconsiderable, on a subject of great practical importance. It is often of very great moment to be sure whether dark loose evacuations owe their colour to blood or to bile. A particular line of treatment, nay, the very life of the patient, may hang on this diagnostic point. I once saw it tried, and, on the strength of it, a starch injection with laudanum administered, to the exclusion of sundry cholagogues that had been previously given with increasing bad effects; and that solitary injection saved the patient.

If it happen that you are unable, in the extempore process given above, to satisfy yourselves concerning the particular coloration of the fæces I speak of; you may then investigate the subject further by a very simple chemical experiment. If the dejection be offensive, and you are obliged to carry it, pour a little oil over its surface, and it will materially hide the factor. At your leisure, evaporate it nearly to dryness over a water-bath, and act upon the residue with successive portions of alcohol. If the colour be due to blood, you will have a reddish or purplish tinge in the solution, as viewed by transmitted light; if to bile, the colour will be greenish, or olive, if the solution be viewed through the same medium. In the latter case the addition of an alkali will render the hue less deep; in the former, the colour will be darkened by this means. If the hue be greenish, the addition of muriatic acid will render it a shade deeper, from which it will gradually pass into an olive.

Whilst the tenesmus was thus troubling the sufferers, a spasmodic form of vomiting often distressed them at the same time. This relationship between the stomach, or rather the pyloric orifice of it, and the extremity of the rectum, is a curious pathological fact that has several analogies. It would seem almost to be a law, that irritation of one extremity of a living tube is simultaneously attended with irritation at the opposite. We know how the presence of concretions in the gall-bladder will cause agonizing pain at the very point where the duct penetrates the intestine; how a calculus in the urinary bladder will give rise to pain or itching at the extremity of the urethra; how ascarides or piles will excite nasal pruritus, or a tickling in the throat, and frequent short cough. For the same reason, we know that a fit of dyspepsia, with severe nausea, will cause tenesmus, and that this is often a troublesome symptom in scirrhus of the pylorus: conversely, again, any disturbance at the extremity of the rectum will give rise to pain in the stomach and sickness. Severe vomiting has been occasioned by a turpentine enema; and, on the other hand, an opiate suppository has allayed sickness and retching when other means had failed.

In the cases I allude to, it seemed to me that the stomach disorder was generally the consequence of the tenesmus, and not the cause of it; but the rule did not hold invariably. The vomiting was often of a most distressing kind; the matter ejected was chiefly thin or thick mucus (the latter I never saw in the vomiting of diarrhoea); yellow bile, or bile green from acid intermixture; and blood. The last sometimes

tinged the mucus, again appeared alone, and natural looking, and again had a grumous aspect, due, I apprehend, to retention in the stomach, and the influence of morbid acidity upon it.

Of course, with these things was excessive prostration, that told fatally amongst the previously diseased or debilitated, and on the aged. Beyond this prostration, there was little else of moment that I did not particularize when speaking of the diarrhoea. There were, occasionally, cramps and coldness of the extremities, but to nothing like the extent observed in another variety of the same epidemic vomiting and purging I have next to speak of.

The idiopathic dysentery differed not appreciably in its signs and symptoms from that which was consecutive of the diarrhoea. It appeared without any obvious cause, or pathological connection of moment; and in this particular only did it stand alone.

## PROGRESS OF MEDICAL SCIENCE.

France.

### ACADEMY OF SCIENCES.

Meeting of Jan. 25; M. BRONGNIART in the Chair.

THEORY OF SEA-SICKNESS, BY DR. PELLORIN, R.N.—Wollaston attributed sea-sickness to congestion of the brain, an opinion against which the paleness of the face of sea-sick persons powerfully militates. It cannot be more satisfactorily accounted for by repeated agitation of the abdominal viscera, for the intestinal succussion consequent upon horse exercise does not occasion nausea; and it is more easily produced by the motion of an easy than of a rough carriage. It is with reason that M. Jobard, of Brussels, considers sea-sickness to result from a mechanical cause; but we must also take into account the many unpleasant impressions arising on board a ship from the odour of tar, the sight of sick people, &c. It is when the vessel rises on the wave that nausea begins, but it is in the descending motion of the boat that sickness increases and acquires its highest degree of intensity. We must attribute the affection of the stomach in sea-sickness to a disturbance of the circulation caused by the motion of the vessel. The result of that disturbance is to deprive the brain of a certain amount of blood—a necessary stimulant to healthy action: it is an analogous suffering to that endured by persons who are bled standing. Perhaps also stasis of the venous blood in the cerebral sinuses may be admitted to exist during the first period of sea-sickness, as a natural result of the general slackening of the circulation. Dr. Pellorin's ingenious theory is supported by the paleness of the face, the refrigeration of the extremities, smallness of pulse, weakness of action of the heart, and the general state of collapse of persons who suffer at sea. If this theory be correct, those individuals will best resist the sickening influence whose circulation is active, and heart voluminous. Young children seldom are sea-sick, doubtless on account of the size of their heart—relatively larger than it is in adults. Animals are less affected than man, because their brain, being placed on the same horizontal line with the heart, receives blood from it with greater facility than in the human species. The marine soldier, compelled to exert himself when he goes on board, suffers less than his officer; and experience shows that all circumstances by which circulation is accelerated diminish, or altogether prevent, sea-sickness. The vomiting and retching which characterize the ailment must be looked upon as an effort of nature to restore to the brain its proper amount of blood. The treatment of sea-sickness should be conducted on the following principles:—Before it appears, the circulation should be stimulated with opium, wine, acetate of ammonia, or spirituous fluids; when the symptoms are present, the horizontal situation in a well-suspended hammock should be adopted. Dr. Pellorin's paper concludes with a few lines, on the possible application of artificially-produced sea-sickness to the treatment of acute cerebral disease.



**CAUSES OF DEATH IN STILLBORN CHILDREN,** by Richard King, M.D. (of Sackville-street, London).—An interesting paper on this subject was laid on the table, by the secretary of the Institute; but its length and its importance require a more lengthened review than our space permits us to forward at present.

#### INHALATION OF ETHER.

M. Gerdy, professor of external pathology at the Faculty of Medicine, forwarded an account of some experiments he had made upon himself, for the purpose of testing the effects of the new discovery. At first he had felt a tingling sensation in the throat, followed by a violent fit of coughing; immediately afterwards a general sense of numbness and of heat of head; at the same time that this numbness extended to the lower extremities, an agreeable heat also became diffused. All these united sensations constituted a very pleasant state, in which intellectual consciousness persisted, although general sensibility was extremely blunted. Sight had not been modified, but hearing was so, and very materially, sounds becoming less distinct, and yet louder in proportion, as the "engourdissement" was deeper. The pulse did not vary throughout the experiment.

M. Ducros persisted in claiming, *ad majorem Gallie gloriam*, the credit of the discovery.

M. Velpeau was of opinion that the question of priority should be waived, or at least divided: for many years the stupefying action of ether had been known; it was described in most works on forensic medicine published during the last twenty years; but for its first application to surgery the profession was clearly indebted to Dr. Jackson, of Boston. This was a great discovery, and undoubtedly surgery would derive from it immense, invaluable advantages.—Meeting adjourned at five o'clock.

#### ACADEMY OF MEDICINE.

Meeting of Jan. 26; M. BEGIN in the Chair.

**INTERMITTENT FEVER.**—A letter was read from C. Broussais, M.D., in which the following points were more particularly set forth:—The enlargement of the spleen results from the febrile paroxysms, and particularly from their repetition, and is not removed only by one specific drug, sulphate of quinine, but also by other medicines capable of arresting the febrile manifestations.

#### PAINLESS OPERATIONS.

A letter was read from Dr. Landouzy, professor of the School of Medicine of Rheims, in which that surgeon gave an account of four operations performed on patients previously placed under the influence of ether. In two cases the inhalation was not productive of loss of consciousness; in another, a tumour was removed without pain from the mastoidian region; but hemorrhage appeared half an hour after operation.

M. Rénaud communicated the results of some experiments made with three or four dogs, and one horse, at Alfort. The experiments were conducted by M. Henri Bouley, and succeeded perfectly; various operations, generally productive of pain, were performed, and did not seem to cause any suffering. On a pupil of the school, rendered unconscious by inhalation of ether, a puncture and an incision were made, and were not felt.

Professor Velpeau remarked that healthy patients had seemed to him more rapidly affected by ether, than diseased subjects; the professor had noticed in most cases a singular degree of muscular relaxation, which might be turned to advantage in the treatment of dislocations.—The meeting adjourned at five.

#### PARISIAN MEDICAL SOCIETY.

Meeting of Jan. 27; Dr. RICORD in the Chair.

**CESAREAN OPERATION, PERFORMED TEN MINUTES AFTER THE DEATH OF THE MOTHER.**—**PRESERVATION OF THE CHILD.** By C. CAMPBELL, ESQ., INTERNE OF THE HOSPITALS OF PARIS.

A woman, C. G., aged twenty-three, pregnant of her third child, was admitted into the hospital on the 1st of November, 1846. She was a woman of middling size, well formed, and presenting a

slightly blueish tinge of the lips, indicating some derangement of the circulation. The two former pregnancies had been fortunate, and delivery natural in both; being affected with slight bronchitis, the patient, who expected to be confined within the space of six weeks, was placed in the infirmary. The foetal movements were brisk, and the general health of the woman satisfactory in every respect, up to the morning of the 4th of December, when nothing could lead the medical attendants to foresee the possibility of sudden death. That day the patient enjoyed better spirits than she had previously done; and in the evening was relating a story to her companions, when she fell from her chair and expired: the eyes immediately grew dim; the face, at first of a livid blue, became ghastly pale; the lower jaw fell, and a small quantity of frothy fluid ascended from the mouth; the pupils were dilated and motionless. On further examination of the heart and pulse, not the slightest pulsation could be detected—the respiratory movements had entirely ceased; in fact, death was everywhere except in the womb, where a living foetus testified its presence by motion, perceptible to the hand, and even to the eye, and by sounds appreciable by the stethoscope. The heart, four minutes after the mother's death, presented 110 pulsations, which rapidly diminished in frequency, whilst, on the contrary, the child's more violent motion indicated diminished and struggling vitality. Eight minutes after the mother's death the pulsations of the foetal heart had descended to 60 or 70. On examination *per vaginam*, in which Mr. Campbell was assisted by Mrs. Charrier, the "*sage femme en chef*," the cervix uteri was found short, thick, and closed; and the usual means employed in similar cases for the purpose of recalling life had proved totally ineffectual. It was then that Mr. Campbell resolved upon the Cesarean section—the only method by which the life of the child might be expected to be saved. Ten minutes after the mother's death the operation was performed, according to the usual method. A longitudinal incision, seven inches in length, was carried on the left of the linea alba, down to the rising of the mons veneris, and the uterine walls were slowly divided in the same extent. A male foetus was extracted without difficulty; the heart was still beating, although slowly; he uttered no cry, and was immediately christened Cæsar—"à Cæsare, vel à Cæso matris utero." No spontaneous inspiration having taken place, insufflation of the lungs with the laryngeal tube was resorted to, and a certain amount of amniotic fluid tinged with blood escaped from the bronchi. After ten minutes the pulse rose to 120, and a blue colour spread over the skin, but natural inspiration took place only twenty-five minutes after birth. A small quantity of blood was allowed to escape from the chord, and frictions, warm ablutions, with wine, were employed; the liquid discharged from the mouth and nose soon became frothy, and five hours after birth, expiration was accompanied by a feeble cry. The application of a leech to the throat on the second day of life improved the tone of the voice, but it was not until the fifth day that the infant took the breast without difficulty. The child is now aged fifty-five days, and in a perfectly prosperous condition.

On examination of the body of the mother, all the organs were found perfectly sound, with the exception of the heart, the left ventricle of which was in an evident state of hypertrophy. The right auricle and the venæ cavæ were distended by dark coagulated blood; and a communication was found to exist, without laceration, through the foramen ovale between the auricles.

**ELECTION OF OFFICE-BEARERS.**—Dr. Ricord was unanimously elected President, and Dr. Shrimpton Vice-President, of the Parisian Medical Society, for the year 1847.

#### FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

We have stated that organized morbid productions may be divided into two classes—some repre-

senting more or less perfectly the natural textures of the system; others, on the contrary, resembling none: to the former we give the name of homologous, to the latter that of heterologous, morbid productions.

**1. Homologous Morbid Productions.**—We may, at starting, establish as a general law, that all the tissues which anatomy shows us in the healthy organism may be accidentally formed in disease. Some, however, such as the nervous or muscular textures, are reproduced only in particular circumstances, viz., when these tissues have undergone a loss of substance. Some peculiar local conditions command, therefore, the nature of the accidental production—such is, for instance, the nature of the destroyed part, the accidental texture being in most cases a reproduction of that which it is destined to replace; in other circumstances, it is the function to be accomplished which decides the nature of the morbid production—this we observe in serous membranes and in cellular structures. Several textures are occasionally the result of morbid action—for instance, in the formation of new joints after chronic and irreducible dislocations. In some parts peculiar accidental products are more readily developed: thus, fibrous products arise easily in muscular substances; in fibrous tissue, cartilage; in cartilaginous organs, bone. In all, accidental growths may be the complete or the noncomplete reproduction of natural textures, the latter occurrence being by far the most frequent.

Cellular tissue we find developed in many instances: thus, in divided parts, or in the place of an atrophied solid, or again as the last transformation of false membranes. Adipose matter is also accidentally formed, but should be carefully distinguished from the natural secretion of various fatty substances not usually contained in the cells.

Vascular tissue of new formation we meet in inflamed parts—that is to say, no new vessels are really formed, but extremely small blood-vessels acquire from inflammation a considerable degree of development. In false membranes, vascular tissue is occasionally created: we find it in encephaloid tumours, in erectile tissue formed in the skin, in mucous membranes, and sometimes in sarcocele. We have seen this erectile tissue in the lung of a man who had lost one testis in consequence of a morbid alteration of the same kind.

Serous tissue is frequently a morbid product, or may be the consequence of a transformation of cellular textures. It often replaces an undeveloped organ, and we find it again accidentally formed for the purposes of absorption—e.g., in the brain, in the natural progress of apoplectic deposits. In all cases the serous tissue is a perfect reproduction of the natural textures of the same order; and we sometimes see it externally lined with a fibrous, cartilaginous, or even osseous coating. The contents of the sac are usually serous fluids, or other pathological productions, such as fatty substance, colouring matter, cholesterine. The accidental cavity may be simple, or subdivided into numerous cells in communication with each other. These are called cysts, and exist in cellular regions, and in various parenchymata, particularly the ovaries, in which they are observed in perfection. The cysts, erroneously called hydatids, are subject to the same diseases as serous membranes—to inflammation, for instance, by which pus and fibrine are thrown out, and obliterations of the morbid cavity sometimes obtained. We have met with one remarkable case of the sort, in which a considerable ovarian dropsy was cured by this natural process; ten years have elapsed, and no return of the disease has since occurred.

Mucous tissue is often accidentally formed, not, however, resembling the natural mucous membranes in the complexity of their anatomical elements. We meet with this morbid product in cases when natural mucous membranes require restoration; in others, when the organism requires to be protected against the contact of certain agents; we find it developed, also, around purulent collections, and lining the cavity of fistular ducts.

Cutaneous tissue is produced, and that only imperfectly, for the reparation of the skin. Epithelium and epidermic growths are sometimes observed in tumours, and also horny products, being an exag-



geration of the natural horny layers of the skin. In some tumours we meet with hair, and fatty collections, usually enveloped in fibrous or cartilaginous walls.

Fibrous tissue resulting from disease may affect the form and texture of the natural structure it reproduces—*e. g.*, capsules, membranes, sheaths, partitions, &c.; or it may present not the form but the texture of natural fibrous tissue, as in the growths of the dura mater, for instance, or in those of the womb.

Cartilaginous tissue we observe developed in natural or accidental fibrous structures, or in the cellular textures of the system; and bony tissue we often see particularly formed for the purpose of replacing destroyed bone.

2. *Heterologous morbid products* are those which have no analogy with any of the living structures. One class of heterologous productions consists of growths which participate in the life of the being on whom they are observed, and the other is composed of organisms distinct from that of the individual who bears them—such are the entozoa. Some heterologous productions are always in a fluid state; others, from the first, present a solid consistency, and at a variable period of their existence become softened, an occurrence which has for its object their elimination. Absorption of the solid growth, after separation of its particles, is not absolutely impossible; it is oftener, however, supposed to have taken place than it is actually ascertained to have occurred. It is obvious that these products cannot possibly acquire any degree of size without interfering more or less with circulation in the organ which they occupy, thus becoming the cause of congestion and of its consequences; it may even modify more intimately the structure of the solid, and occasion its ulceration—an event chiefly observed during the period of transition of the morbid product from the hard to the softened state. When eliminated the accidental growth may still be reproduced in the parts vicinuous to those which had first been invaded, and the destruction of the solid gradually extend; the ulcer may, however, remain stationary, or it may even become cicatrised: terminations which are regulated by the nature of the morbid productions, and by that of the solid, in the texture of which it had been developed. In consequence of the numerous links by which each portion of the system is connected with all the others, and also in consequence of the absorption of some of the particles of the accidental productions into the circulating fluid, the entire body soon participates in sufferings which are originally local, and a condition termed *cachexy* becomes established. In all these accidental products, traces of more or less advanced organization can be detected; they may, for instance, be distinctly seen with the naked eye in encephaloid matter; in others, where the unaided eye cannot succeed in furnishing sufficient proof of organization, the microscope betrays the presence of distinct granules, of more or less developed cells, disseminated in amorphous matter—a disposition which recalls that of the lowest orders of animals, in whom, no circulation being in existence, a nutritive means must, however, be admitted.

An essentially fluid heterologous product is *pus*. *Pus* never forms but when blood has accumulated in a more or less evident manner, and where a certain amount of fibrine has escaped from the vessels. The extravasation of albuminous fluids is by no means sufficient for its production. Simple serous effusions never contain *pus*. When blood stagnates in the vessels, it is even supposed by some, though it does not appear to be fully demonstrated, that *pus* may be formed. It is a white, creamy fluid, heavier than water, of a sweetish taste, alkaline when in a state of freshness, and acid when kept a little time. Left to repose in a narrow tube, *pus* separates into two parts—an opaque deposit, and a transparent alkaline fluid perfectly similar in the nature of its component principles to the serum of the blood. The deposit is entirely formed of globules. In imperfect *pus* the separation into two parts cannot be obtained.

*Pus* is essentially composed of albumen, some traces of fibrine, and a great deal of fatty matter; the microscope shows that fluid not to be formed of

the remains of solid parts, but to be an organized substance containing those granules, those cells which we mentioned above. For the purpose of studying *pus* it is necessary to use a magnifying power of between 600 and 700 diameters; a liquid is then seen containing, in a state of suspension, very small granules and cells—a term which we consider to be synonymous with that of globules, more considerable in general than those we have described in the blood. Their form is exactly spherical, and they must be studied—1, in their nuclei; 2, in their walls; and 3, in the substance which separates the latter from the former. The nuclei are formed by the union of two, three, or four granules; the walls, generally transparent, become, however, opaque and granular—circumstances dependent upon the age of the cell. The fluid contained is usually colourless, but sometimes acquires a darkish hue. Incomplete cells, deprived of nuclei, are also met with, containing numerous granules; these have been considered as the result of inflammation: other cells present only their nucleus, no walls having been yet developed around it. In perfect *pus*, the globules are well-formed and complete; in imperfect *pus*, the cells are irregularly shaped, their nuclei are not well-formed, the organization of the globules is not arrived at its full development. *Pus* is not generally viscid; but it may acquire this quality from the presence of a substance not yet sufficiently known—*pyine*, or from the accidental mixture with mucus, or, again, from its sojourn in the bladder. In the latter case it has been considered to have received its viscosity from the decomposition of urea; because, when ammonia is mixed with *pus*, that fluid invariably acquires a similar consistency. The blood does not contain ready-made *pus*; but its fibrine when extravasated during inflammation, easily becomes transformed into *pus*. Should the fibrine have been solidified after having escaped from the vessels, it must again return to the fluid state before the transformation can be accomplished; in a word, fibrine is the blastema of *pus*. When fibrine issues from the vessels in consequence of phlogistic action, it either assumes the form of a reticular substance, in which vascularity may sooner or later be established, or its granules become the basis, the origin of the nuclei to be eliminated in the shape of *pus*. In some cases, although suppuration is apparent, the true globule of *pus* is not found. Thus, in typhoid fever, the distended follicles contain a matter constituted by an amorphous, semi-transparent substance, in which no cells can be discovered, but granulations more or less distinct. This observation, made by Vogel, is extremely important; it indicates in typhoid affections the deposition of a special accidental production in the mucous follicles, which is, after a certain time, softened and eliminated, leaving an ulceration in its stead. In serofulous tumours Vogel also found a product analogous to what he terms “*typhic deposits*.” Both these morbid substances bear a remarkable analogy to tubercular matter, the characters of which we shall presently see.

*Tubercle* is another heterologous morbid product, not resulting from any transformation of healthy tissue, but from the deposition of its constituting elements amongst the particles of solid matter. From the first, tubercular matter presents itself in a solid form; perhaps it may be admitted to be deposited at its earliest origin, in a fluid shape, but it has never been thus seen, although the supposition is one not altogether devoid of probability.

Tubercular matter may be observed, infiltrated or disseminated in small masses, in the texture of a solid; these masses increase, unite, and form large groups, which augment by juxtaposition, never by intussusception. Originally the tubercle may be transparent and greyish, or opaque and white, differences of colour accounted for by varieties of composition, which the microscope and the crucible reveal. To the naked eye the tubercle presents no trace of organization. The chemical analysis shows it to consist, in the first place, of badly-defined organic matter, which some have considered to be a mixture of fibrine and albumen; which others have looked upon as constituted by gelatine, and which

has even been said to be casein; but the difficulty of distinguishing these substances in a solid state from each other (except gelatine) is doubtless the cause of the uncertainty which still prevails on the subject. Fatty matter is also found in tubercle, constantly. The salts which tubercles contain are variable as to their proportions, but invariable as to their nature. The phosphate and the carbonate of lime are always found; and M. F. Boudet has lately shown that tubercular matter also contains a certain amount of chloride of sodium.

The microscope permits us to discover in tubercle three elements:—1st. A greyish semi-transparent matter, analogous to Vogel's typhic deposit; it is called the hyaline substance. 2nd. Granulations, variable in colour from a grey or brown to a whitish hue. 3rd. Corpuscles, more voluminous than the granulations, but differing from real cells by the complete absence of a nucleus. Their diameter is easily measured, but their form is not regularly spherical, but oval, and has generally an irregular contour. Their colour is of a clear yellow; they seem opaque interiorly, and they contain many granulations, floating in an imperfectly transparent substance, but never any nucleus, not even when acetic acid is employed to discover it. In purulent globules, in the cancerous cell, a nucleus is always present, and, therefore, this negative character is not without value. These three microscopic elements are found in various proportions; the predominance of the corpuscles causes the tubercles to group together; and these corpuscles are, on the contrary, dissociated from each other during the period of ramollissement.

Vogel asserts that the opacity or transparency of the miliary tubercle depends upon the abundance of its corpuscles—an opinion so very probable that it really would be a pity if it were not correct. Such is the constitution of hard tubercles. During the period of softening, the corpuscles become destroyed, and new productions, viz., globules of *pus*, appear, not produced by any transformation of the tubercular cell, but from the inflammation of the neighbouring textures. It is, therefore, an error to say that tubercular matter begins or finishes by purulent transformation. During the progress of tubercular disease, the surrounding tissues are variously modified; the pre-existence of congestion to tubercle may be admitted, but it is an assertion not susceptible of demonstration; the circulation in the neighbourhood of tubercle is more or less interfered with, and, in many cases, vessels are obliterated; in others they are lacerated, and become the occasion of more or less abundant hemorrhage. In all parts of the body around tubercular deposits, we may observe stasis of the blood, true inflammation, suppuration, ulceration, all of which processes are preparatory of elimination. When the deposits contain a large quantity of saline elements, they acquire a dead white colour, and a cretaceous consistency, and may thus remain in the tissues for an indefinite period without causing any further local disturbance; but, unfortunately, it is but too frequent to see such cretaceous concretions surrounded with more recent tubercular deposits, the progress of which has not been interfered with by a similar curative process. In all parenchymata, from the lungs to the spleen, can tubercles be met with; also in the cellular tissue which supports serous and mucous membranes, and sometimes, though seldom, in the very texture of the latter. We find them developed in free cellular tissue, and in various morbid productions, such as false membranes; and, lastly, in tumours of different natures. Dr. Louis has discovered a remarkable law in relation to the frequency of tubercular disease in our organs; it is the following:—After the age of fifteen, no tubercles are found in any organs, if none exist in the lung; this rule has an exception: false membranes may present tubercles, although none have formed in the pulmonary viscera; but the occurrence is extremely rare. To children, however, the rule does not apply. Drs. Rillat and Barthéz, out of 312 tubercular children (*post-mortem* examinations), found the lungs healthy forty-seven times. In the adult, generally, the lungs alone are affected, and sometimes with these the intestine and mesenteric glands; but in children a general and remarkable



tendency is observed to the formation of tubercles in most parts of the body.

D. MC CARTHY, D.M.P.

**MEDICAL STATISTICS.**—The number of physicians practising in Paris is 1,442.

**LEECH PONDS.**—In the neighbourhood of Bougie (Africa), ponds have been found containing a large number of fine leeches.

## **PATHOLOGICAL SOCIETY.**

*Meeting of Jan. 2; R. ADAMS, Esq., Chairman.*

Dr. O'Ferrall produced some specimens taken from the body of a woman who had laboured under chronic diuresis, or polyuria, or diabetes insipidus, as (he observed) it is differently entitled by various authors. The opportunities of examining such cases after death are rare—so rare that he believed no similar specimens had yet been laid before the society, ample as have been its opportunities.

About five years since, the woman first came under notice; she was then admitted to St. Vincent's Hospital, her age being between fifty and sixty. She was even then much emaciated, so much so that no person looking at her could have supposed she had many months to live. The quantity of urine passed was enormous, generally amounting in the twenty-four hours to ten pints, and sometimes more; she had thirst, and had also cough and palpitation of the heart. These were the most distressing symptoms. The urine was of extremely low specific gravity—only 1.002, and gave no evidence of albumen. Throughout the case, the character of the urine was simply that of extreme tenuity, owing to the great superabundance of its aqueous element.

On examining the chest, a well-marked bruit was audible at the extreme left of the cardiac region. There was dulness on percussion beneath the left clavicle; the expectoration was mucous, and not much in quantity; there was no diarrhoea, and no sweats.

After several months she was allowed to go into the country. At the end of a year she returned in a very reduced state, though it could hardly be said that she had lost flesh, for she was from the beginning a mere skeleton. Her symptoms were nearly as before. The urine, both in its chemical and other qualities, remained exactly the same. The cardiac symptoms were unchanged also; but the dulness in the infra-clavicular region was increased in extent. There was no œdema of the extremities, or any of the other general signs of cardiac disease; but the bruit, as before, was so extremely well marked as to leave no doubt that regurgitation through the mitral opening was permitted.

The patient's history for the last three years, Dr. O'Ferrall said, was almost uniform; scarcely a single symptom could be added, except increased thirst accompanied with excoriation of the tongue, which was uniformly of a deep red colour. This was almost the only aggravation which the symptoms underwent. There was no diarrhoea, but occasional pain in the abdomen; no perspirations.

The poor woman at length sank, after a long struggle. The chest being first opened, both lungs were found irregularly solidified throughout a great portion of their extent, presenting a number of solid masses; the remainder of the lung, as might be expected, being in an emphysematous state. A portion of the apex of the left lung alone was softened, forming a cavity of very small extent, which had externally the usual puckered appearance. A succession of tubercles in vast numbers was detected, most of them very small; a few, however, were large, and resembling white paint in a half-dried state. With the single exception, at the apex of the left lung, there was not the slightest trace of that process of softening observed in advanced tubercular disease.

The heart was not large; and there, as is un-

usual in mitral-valve disease, the apex was formed by the left ventricle. Both cavities contained blood, showing that death took place by syncope. There was well-marked insufficiency of the mitral valve, the passage of a finger being readily permitted between its anterior and posterior laminae, owing to the shortening of the former. Looking from the auricular side of the opening, its margin was mammillated, irregular, and thickened; and, although not diminished in size, had acquired the crescentic form described by Dr. Adams.

The liver presented the nutmeg appearance, but contained no tubercles. The right kidney was a little larger than the left, and harder than natural. Its capsule adhered very slightly indeed to the surface, and was easily peeled off. A section of it showed an anemic appearance, but there was no morbid deposit, not the slightest trace of anything that could be confounded with Bright's disease. A few points near the tubular portion were somewhat harder than the remainder. The vessels of the left kidney were carefully filled with fine injection by Dr. Butcher. The injection ran freely through the cortical substance to the periphery, and even was extravasated beneath the capsule to a considerable extent. This latter circumstance was sufficient to show the feeble attachment which existed between the kidney and its capsule, and negatived the supposition that perinephritis had formed any part of the disease. The section showed a few pale patches in the cortical substance close to the tubular structure. Into these portions the injection did not run, and their consistence was found to be still firmer than that of the remainder. The only evidence of chronic nephritis afforded by the organs was that presented here.

On examining the intestines, several large patches of ulceration were found in the neighbourhood of the cæcum.

Dr. O'Ferrall would avoid going into a tedious review of all the circumstances of the foregoing case, but would just dwell upon a few of the leading points. In the first place, it was seen that, though there had been phthisis of very long standing, yet there was an absence of that softening which usually occurs in such cases; the characteristic sweats were also absent. Might this latter be accounted for (he would ask) by the coexistence of the profuse diuresis, and might not the same cause have prevented softening of the tubercular masses; might not their unusual dryness be attributable to the removal of the aqueous position of the blood in the profuse urinary secretion.

Next, the case presented a well-marked instance of cardiac disease—that is, of free mitral regurgitation without any of the general characteristic symptoms of the disease; no pulmonary congestion, no hæmoptysis, no infiltration into the general cellular tissue of the body. Again, it was to be remembered that, though there was remarkable ulceration of the bowels, there had been no diarrhoea from beginning to end of the case; no liquid evacuation; on the contrary, there was occasional constipation, but for a period of five years, during which the patient was under observation, there was nothing like diarrhoea.

In all these points of view he considered the case possessed much interest; not, perhaps, as affording a complete explanation of diabetes insipidus as a distinct disease, but as presenting a very remarkable combination of diseases. When it is remembered that there was phthisis without sweats, ulceration of the bowels without diarrhoea, free regurgitation at the mitral opening without pulmonary congestion or anasarca, it appeared to him (Dr. O'Ferrall) not unreasonable to conjecture that these numerous co-existing lesions (any one of which was quite sufficient to shorten life) were, as it were, neutralized, and life even prolonged by the addition of another malady—thus illustrating that mysterious principle in pathology, the study of which has been so little cultivated, namely, the antagonism of disease.

Dr. Hutton read the following notes of a case of laceration of the stomach and general perito-

nitis, which occurred in a little girl, admitted to the Richmond Hospital last August:—

M. D., aged eight years, was admitted into the Richmond Hospital, in August, 1846, for strumous ophthalmia. Both corneæ were opaque, and studded with numerous very minute ulcers. The child had rather a pale scrofulous aspect, and was reported by her parents to be liable to indigestion, but in other respects seemed to be in tolerable health. She was directed to take three grains of the bromide of potassa twice or thrice in the day. Blisters were applied from time to time to the temples and behind the ears, and collyria of different kinds were employed. Under this treatment she seemed to improve considerably; the appetite, general condition, and animal spirits became very good, and the cornea of one eye had nearly resumed its healthy appearance. It was observed that she had a remarkable desire for the fat of meat, and would eat with avidity the portions which other patients left. She was regular in her bowels, and was never heard to complain of pain in the stomach. The treatment was continued with little intermission until the 14th of November, 1846, in the evening of which day she complained of nausea. On the succeeding day she vomited at intervals for several hours; this ceased early in the afternoon of the same day. The resident pupils reported that she had no pain or tenderness of the abdomen, but complained of headache; her pulse was quick and easily compressed. On the morning of the 16th she was evidently sinking, but still complained only of pain in her head; the extremities were cold, and her pulse scarcely perceptible. In the evening she became comatose, and died on the following morning.

In ten hours after death the autopsy was carefully made, and revealed the following extraordinary appearances:—There were the usual general evidences of peritonitis, effusion of lymph, &c.; the stomach, which lay collapsed, was removed with great care, and accurately examined; at its cardiac extremity there was a very large rent four inches in extent, and in the vicinity of the rent were two or three small oval openings about a quarter of an inch in diameter; the coats of the stomach were found extremely attenuated at its cardiac extremity, thus accounting for the extent to which this organ had been torn; the serous membrane in the neighbourhood of the laceration was for a considerable extent almost laid bare, the mucous membrane of having entirely disappeared, leaving only the serous, with a few muscular fibres. The pyloric end of the stomach contrasted remarkably with the attenuated cardiac extremity, for there the coats were unusually thick. Very little appearance of inflammation was manifest on the internal surface; there was scarcely any vascularity, nor was the mucous membrane of the pyloric extremity at all softened. In the pleura there were two or three attenuated patches, but no ulceration.

This state of absorption of the inner coats of the stomach without inflammation was, Dr. Hutton observed, somewhat analogous to the condition described by authors as the result of digestion after death by the organ itself; but the subjects of such cases have generally been known to have taken a full meal a short time before sudden death. In the present case the laceration seems to have taken place in the efforts of vomiting, and the result was probably facilitated by the hypertrophic state of the muscular coat at the pyloric extremity. The existence of extensive peritonitis indicated that the laceration occurred some time before death. From the period of the first occurrence of nausea and vomiting till her death, three days elapsed.

Dr. Law exhibited two casts illustrating a very interesting pathological complication, consisting of an aneurism of the ascending aorta, and of pericarditis with sero-sanguineous effusion. The first cast exhibited the pericardium so distended that, when the sternum was raised, nothing else appeared, the lungs being completely pushed aside. The second cast exhibited the pericardium opened



nd presenting its parietal and visceral surfaces thickly coated with lymph deeply stained with blood. There was an aneurismal tumour, about the size of a large orange, proceeding from the right side of the ascending aorta, immediately after the origin of the artery, so as not to involve the valves, neither did it engage the arteria innominata. It was only partially filled with coagulum. This tumour pressed obliquely upon and flattened the trachea, and also compressed the right lung. The subject of the case was a woman aged twenty-five, married, of intemperate habits. She had cough for three years, but did not suffer much till within the last four months, when her breathing grew very distressing; she now became hoarse, and had difficulty in swallowing. The phenomena exhibited on admission were as follow:—Face livid and congested; eyes staring; urgent dyspnoea; hoarse laryngeal cough; bronchitic râles through both lungs, both posteriorly and anteriorly; morbid fulness of the throat, and prominence of the upper portion of the sternum; dullness on percussion at top of the sternum, and in right infraclavicular region; a distinct double pulsation corresponding to the sternal dullness, diminishing in intensity as the stethoscope was moved towards the heart; unusual extent of dullness in bronchial region; heart's action feeble, diffused, and free from abnormal sound; the superficial veins of the thorax were much congested; deglutition difficult; no difference between the pulses at the wrists.

Dr. Law diagnosed aneurism of the ascending aorta; and from the absence of any abnormal sound in the situation of the aortic valves, and the correspondence of the pulses at the wrists and the double pulsation of the tumour, he assigned as the locality of the aneurism the portion of the artery comprised between its origin after the attachment of the valves and the giving off of the innominata, the correctness of which diagnosis the examination completely verified.

Dr. Law remarked upon the pericarditis being obscured by the signs of the aneurism. He was confident that no friction sound existed during life, which he attributed to the large amount of effusion which prevented the opposite pericardial surfaces coming into contact, and thus interfering with the development of this phenomenon.

#### KING'S COLLEGE HOSPITAL.

Mr Fergusson operated on four patients, on Jan. 26; two being subjected to the influence of ether.

The first case was that of a man about fifty years of age. He had had a cancerous ulcer of the lip removed some months before. The disease reappeared in the absorbent glands beneath the angle of the jaw, which were considerably enlarged, forming a tumour in that region, and he now returned to the hospital for the removal of the tumour. The inhalation of the ether occupied between three and four minutes. The first incision was performed without the slightest evidence of pain; but towards the end of the tedious dissection, requisite in all operations on a part so freely supplied with important vessels and nerves, he showed signs of suffering: he groaned, cried out, and was exceedingly restless. After the completion of the operation, he still appeared somewhat intoxicated, but replied to questions put to him by the operator. When asked if the operation had been performed, he answered in the negative; and expressed his willingness that it should be immediately done, showing that he was not conscious of, or did not remember the pain caused by, the operation, although he had shown the ordinary physical signs of suffering.

Mr. Fergusson made some remarks on the variations of the action of ether on different patients, and said that, although this man had shown many of the symptoms of suffering, he had declared himself unconscious of the occurrence; although he remembered crying out about his wife and

family. Mr. Fergusson then observed that there had been some difference of opinion as to the propriety of operating in such a case as the present; but that he had been induced to operate for two reasons. First, that the tumour was in all respects in a favourable state for removal, as it was not of large size or so intimately connected with large bloodvessels and nerves as to incur more than ordinary hazard in its removal; and secondly, that the patient had been sent into the hospital by a gentleman who had been operated on with complete success under similar circumstances.

The second patient was a boy of about sixteen, with a tumour seated on the masseter muscle. The inhalation of ether was continued about two minutes and a half, when the patient sank backwards apparently in a state of insensibility. The operation commenced, but the boy appeared perfectly sensible to pain, and cried out lustily during the whole time occupied in the removal of the tumour. The ether certainly failed in this instance. Mr. Fergusson remarked, that although the cases had not, to-day, been so successful as previous results, the inhalation of ether was, doubtless, an important discovery, and that it would furnish a most useful adjunct to surgical operations.

The remaining operations were performed without the intervention of the vapour of ether. A man from whom a polypus of the nose had been previously removed, and who had left the hospital two months before without any trace of the disease, had been again admitted with a return of the disease. The nasal bone of the right side appeared to have been absorbed, and a small tumour was seen near the inner canthus of the eye. Mr. Fergusson attempted to remove the polypus by the forceps, but, finding it of so soft a character as to break up under their grasp, he made an incision, of about an inch in length, at the most prominent part of the tumour, and, introducing his finger, pushed a quantity of medullary matter through the nostril, and thus cleared away the fungus as far as possible.

After the operation Mr. Fergusson stated that two months before he had operated on this man, and removed a mass of an encephaloid character, weighing about four ounces; that, judging from the nature of the tumour, he was very suspicious of the result, but the case went on perfectly well, and the man was discharged apparently cured. The return of the disease confirmed his suspicions, and a fatal termination might be ultimately apprehended.

The last case was that of the woman who had on a former occasion refused to breathe the ether—preferring the pain. The case was one of rupture of the perineum, which had been followed by prolapsus uteri and protrusion of the rectum. The previous operation had much improved the state of the parts, but a large fissure in the perineum still existed. The edges were pared, and the cut surfaces brought together by sutures.

#### TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsman or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s. Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

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Bookseller, or at the Office, price 5s. An allowance is made to the trade.

D. E.'s reply to a pupil of Westminster is a reply to something not under our jurisdiction.

Mr. Farnworth.—There is no doubt that Dr. Guy's work on Forensic Medicine is the best written manual we have on the subject. The completion of the Cyclopædia named to us is so much a matter of conjecture that we cannot give any answer to be relied on.

W.—Mr. Rosenhagen's charge against the medical officers of the Cheltenham Hospital has already been brought under our notice.

Mr. Batty, Astley's Amphitheatre.—Although by the nature of our Journal we are precluded from giving to his laudable efforts on behalf of the destitute Irish and Scotch the notice they deserve, we think him entitled, alike, by the excellence of the entertainment and the desirableness of the object to the hearty support of the public.

Zeta.—Every youth intended for the medical profession ought to be sufficiently instructed not only in the Latin but the Greek language. We should not recommend such education to be confined to the Medical Classics, but among these Aræteus and certain of the treatises of Galen might be read for the Greek, and Celsus, Gregory, and Herberden's Commentaries, would suffice for medical Latin. If intended to pass the examination at the College of Physicians, Sydenham and Harvey's works might be added, but the former would suffice.

W. A. is thanked for his communication, recommending the application of a bag containing hot salt or bran around the throat in cases of croup, which may be useful in some slight cases of the disease in question. In the more severe cases, in what may be termed true croup, such an application would be absolutely useless, except as an adjuvant to much more severe measures.

Medicus.—We are unable to answer the question.

Dr. Deverell's and Mr. Close's letters are unavoidably postponed; so also are communications by Dr. Hilbers, Mr. Skye, Mr. Braid, Mr. Markwick, Dr. Wake, and several other gentlemen. Several reports of Learned Societies are likewise delayed. Many letters received during the present week remain under consideration.

The several gentlemen who have addressed us on the "judgment" on the coroner by the Court of Queen's Bench, are requested to accept our warmest acknowledgments.

The "Old Army Officer," who addresses a letter through the present number to his brother medical officers, promises us a series of letters more fully developing his views on the same subject; and begs us to state that he will be happy to communicate personally with any gentlemen who agree with him in the necessity and wish to co-operate in the formation of a new voluntary organization of the medical members of the two departments.

Fushos.—The muscles have appeared to us to contract in amputations under the hypnotic influence of ether, in precisely the same manner as under ordinary circumstances.

A Communication has been received from Dr. Murray.

#### THE MEDICAL TIMES.

SATURDAY, FEBRUARY 6, 1847.

"The attack on the Coroner being circulated in such a journal as the 'MEDICAL TIMES,' while the inquiry was being held, naturally produced a strong sensation and general excitement."—UNANIMOUS JUDGMENT OF THE QUEEN'S BENCH, DELIVERED BY LORD DENMAN.

"I CANNOT DISGUISE from the Court that the continued exercise of Mr. Wakley's functions as Coroner depends on the granting of this rule."—SPEECH OF THE ATTORNEY-GENERAL FOR THE CORONER OF WEST MIDDLESEX.

THAT deplorable stain on the fair fame of our administrative jurisprudence, "The Hounslow Inquest," has at length gone through its "in-



quest"—the inquest our exertions enforced for it. Lord Denman, the head coroner of the kingdom, and the other eminent Judges of the Queen's Bench, have sat both over it and the judicial character of the coroner who presided. The "verdict" of the whole court—matured, full, decisive, unanimous—is against that functionary, and for us. *The judges of the land have deliberately and solemnly pronounced themselves of our opinion on the Hounslow investigation.*

That for the first time in English History a coroner demanding from his judicial superiors, legal reparation for the most violent impeachment of his official character pen could write, should be repelled from the court in the measured language of dignified censure and public ignominy, is a circumstance that might well excuse our indulging the language of exultation and pride. But the triumph—albeit secured at our personal risk—is in results, at least, less ours than that of the profession and the public. Personal considerations, indeed, are lost in the gain it implies to the general weal. A signal instance has been established through us, that public functionaries may not with impunity sacrifice the fair fame of our jurisprudence and the honest repute of worthy medical men, even if it were not to what the Judges think, the possible need of a public sensation, or the possible convenience of a pecuniary testimonial. No more Dr. Warrens will have their lives or liberty causelessly, wantonly imperilled by the "discoveries"—commodiously made—of illegally-appointed *post-mortem* examination makers. No more Mr. Days will be stigmatised as unable to examine a dead body, unless helped by a private friend of the coroner. No more Reids and Halls will have their professional repute damaged, in their enforced absence, by the autopsies of an illegal witness, or be publicly excluded from the inquest they are summoned to, with the implication that their testimony on oath would otherwise be modified to suit the convenience of upturning circumstances. No more statutes passed for the protection of medical men, and their independence as witnesses on coroners' patronage, will be violated to the prejudice of justice and the suffering of impugned but innocent practitioners. *We have been the humble instrument of a great public lesson, by which on one side the purity of our jurisprudence, on the other the good standing and independence of an important profession, are guaranteed.*

It could not have been otherwise. The extraordinary circumstances that extorted our unqualified censures *must have* elicited from the highest court in the realm—although his legal protector—an analogous condemnation. The first act of the inquest was a violation of law. The statute entitled the 6 and 7 William IV., c. 89, enacts:—

That from and after the passing of this act, whenever upon the summoning or holding of any coroner's inquest it shall appear to the coroner that the deceased person was attended at his death or during his last illness by any legally qualified medical practitioner, it shall be lawful for the coroner to issue his order, in the form marked (A.) in the schedule hereunto annexed, for the attendance of such practitioner as a witness at such inquest; and if it shall appear to the

coroner that the deceased person was not attended at or immediately before his death by any legally qualified medical practitioner, it shall be lawful for the coroner to issue such order for the attendance of any legally qualified medical practitioner being at the time in actual practice in or near the place where the death has happened; and it shall be lawful for the coroner, either in his order for the attendance of the medical witness, or at any time between the issuing of such order and the termination of the inquest, to direct the performance of a *post-mortem* examination, with or without an analysis of the contents of the stomach or intestines, by the medical witness or witnesses who may be summoned to attend at any inquest; provided that if any person shall state upon oath before the coroner that in his or her belief the death of the deceased individual was caused partly or entirely by the improper or negligent treatment of any medical practitioner or other person, such medical practitioner or other person shall not be allowed to perform or assist at the *post-mortem* examination of the deceased.

Now, Dr. Warren attended White during his illness—he was not called; Dr. Hall was present at his bedside before the death—he was not called; Dr. Reid had made a *post-mortem* examination—he was not called; without bearing one word of their testimony the coroner ordered a *post-mortem* examination to be made by another—Mr. Day. Had the jury heard Dr. Hall, and Dr. Warren, and Dr. Reid, they would then have been in a legal position to ask further testimony, if needed; and thus, while law would have been satisfied, the opinions of three medical witnesses would have gone abroad, and soothed public excitement. The express judgment of the court on this point proves that the Hounslow inquest was an illegal investigation.

But the statute—still careful that medical witnesses should be independent of inquest patronage—does not stop here, but arranges for a further need of testimony. It says—

"And be it further enacted, That whenever it shall appear to the greater number of the jurymen sitting at any coroner's inquest, that the cause of death has not been satisfactorily explained by the evidence of the medical practitioner or other witness or witnesses who may be examined in the first instance, such greater number of the jurymen are hereby authorized and empowered to name to the coroner in writing any other legally qualified medical practitioner or practitioners, and to require the coroner to issue his order, in the form herein before mentioned, for the attendance of such last-mentioned medical practitioner or practitioners as a witness or witnesses, and for the performance of a *post-mortem* examination, with or without an analysis of the contents of the stomach or intestines, whether such an examination has been performed before or not; and if the coroner, having been thereunto required, shall refuse to issue such order, he shall be deemed guilty of a misdemeanour, and shall be punishable in like manner as if the same were a misdemeanour at common law."

Now, Mr. Day, aided by his partner, Dr. M'Kinlay, having made the *post-mortem* examination, is ready to give his testimony as the statute requires. It is, however, not allowed. On the plea that the spine, though in the last stage of decomposition, was the part by which the great fact of death by flogging was to be ascertained, Mr. Day was not heard; and, after two adjournments, another of seven days was ordered, that a third *post-mortem* examination by a London surgeon should be made. And thus, by a double violation of the statute, the

public gained the extraordinary and exciting spectacle of an inquest of four sittings, extending through as many weeks; and during seventeen days of that time, while the public prints were diurnally filled with glowing recitals of a soldier's assassination by flogging, and the public mind gradually roused to the highest point of excitement, we had a public magistrate, by the signal violation of almost the only statute that regulates his proceedings, keeping unheard and unpublished those medical facts which would almost demonstratively have proved the groundlessness of the outcry! Neither Dr. Warren is heard, nor Dr. Hall, nor Dr. Reid, nor Mr. Day, nor Dr. M'Kinlay, during the seventeen days of an inquest wholly turning on medical testimony!

The delay was against law: it was not less so against reason and equity. The public mind is not the better for the unnecessary prolongation of an unjust and fervid excitement: justice is not served by judges stooping to lend that excitement their aid: Colonel Whyte, Dr. Warren, and the persons on whom this painful military duty had been enforced, had, needlessly long, their domestic peace and personal repute injured, their freedom placed in jeopardy: military discipline was threatened and imperilled; and a court of justice—extraordinary spectacle!—made the focus of a nation's agitation.

The coroner, however, swears that till the 27th day of July—the third day of adjournment, and seventeenth day of the inquest—he did not know what the opinions of the medical men were as to the cause of death, and, therefore, could have sought no end by this postponement. But surely he has lapsed into a mistake. The Rev. Mr. Turner, the cause of the inquest, had received before the inquest a certificate of Drs. Warren, Hall, and Reid, distinctly predicating the cause of death. Constable Brent, before the inquest, had, by the coroner's orders, received from Dr. Warren a full account of the *post-mortem* examination made by these gentlemen, as well as their opinion on the cause of death. Sergeant Potter—we have his affidavit to the fact—on the first day of the inquest, had distinctly stated that conjoint opinion. Mr. Fox Maule, on the 21st of July, had notified the opinions of all the medical men in the House of Commons; and even the coroner, in summing up, gives the fact of these physicians' *post-mortem* examination, and their decided opinions, as his reason for declining their authority, and requiring the services of Mr. Day, and subsequently of Mr. Wilson. We may not unreasonably suppose, then, that he knew early—even on the first day of the inquest—the character of their opinions: we are pretty sure he knew the provisions of the violated statute, for it is the statute on which he summons and pays medical witnesses; and it is for our readers to say whether he could doubt that the evidence, illegally and oddly excluded, would, if published, have operated to the relief of parties unjustly assailed, and to the soothing of a public mind groundlessly excited.

But the "spine" having to be examined, as discovered only on the fifth day of the in-



quest, Mr. Day, whom the jury, it is sworn, had selected for his high probity and ability, is not the gentleman now confided in, nor indeed any surgeon of what the statute describes as the "neighbourhood." The coroner wants the "most competent person," and therefore illegally names to the jury—whom? Mr. W. J. E. Wilson—confessedly an intimate private friend—his former sub-editor, and a person under many obligations to him, and to whom he has given, as he admits, twenty-five warrants for *post-mortem* examinations, as far as we are able to gather, more than half the *post-mortem* examinations that West Middlesex for years has coronatorially been made acquainted with. After the jury's illegal appointment of Mr. Wilson, Mr. Wakley meets him by accident in Oxford-street, and the witness is settled in the interview. Mr. Wilson examines the body, twice dissected and twelve days dead, in the enforced absence of Drs. Warren, Reid, and Hall—finds in a muscle farthest from the skin of the back a little softness or pulpiness, hastened, probably, by imbibition of the purulent fluids in the thoracic cavity; and on no further evidence than a spot of decomposition, and in the teeth of scientific evidence, the most conclusive of acute thoracic disease, is able to swear that he has "no doubt" the man White "died from flogging"; that "without the flogging he would be alive then," and that the public excitement, therefore, was well grounded. Dr. Warren's evidence is not received except as the unsworn testimony of a man accused of manslaughter or murder. He, therefore, and his adverse information are got rid of by the coroner. Dr. McKinlay is not summoned; his adverse testimony is, therefore, declined also, and troubles nobody. There remain Dr. Reid, Dr. Hall, and Mr. Day—still three against one; three surgeons backed in their opinion by every fact in the case, and every phenomenon in the autopsy—save one—the spot of decomposition! Mr. Wilson had that, and, having that, naturally enough carried with it the coroner and jury! Thus, then, the statute was violated, the adverse witnesses illegally postponed, the friendly witness illegally chosen, and then met by accident, and, finally, the army surgeons illegally excluded from inquest-room and *post-mortem* examinations. Why? Not for nothing. Mr. Wilson exactly supplied what was wanting. The "SPINE," it is true, yielded nothing; the skin nothing; the internal organs nothing; but then he made a "discovery" not to be found in books, and that yielded exactly the conclusive testimony! The spot of decomposition was as strong inculpation, nay, stronger than the five others' facts were for exculpation; and the coroner, having found all he wanted in his friend, did not feel it necessary to hazard the bringing in another eminent man to see how far Mr. Wilson's "discovery" would admit of support, bear the test of examination, or show a visible existence except in the enforced absence of the medical men most interested in observing it.

But we have said enough. When a careful view of three inquest-sittings, extending through as many weeks, roused our indignation at the

immolation of innocent men, flung, by one who should have shielded them, to the mercy of an excited public opinion, without a protector or advocate, and thus moved, we made bold to outface the flood of popular prejudice, and call the coroner to account in the very mid-career of his intoxicating triumph, we could personally have entertained little expectation of any ultimate success, except that ever-enduring success of well-meaning minds—satisfaction at the discharge of a duty of charity and justice. Well, therefore, may we rejoice that Right, though overwhelmed for a time, has at length vindicated its divine prerogative of ultimate ascendancy, and that, by the instrumentality of the august Court of Queen's Bench, we have on one side aspersed honour, vindicated and rewarded—and adroit oppression, on the other, detected, abashed, and for ever overthrown.

#### A SURGICAL PROFESSORSHIP.

WE announced last week that Mr. Paget has been chosen Professor of Surgery to the Royal College of Surgeons of England. Many, knowing our hostility to the Council of that unfortunate Club, have fancied that we were indulging a practical joke at its expense, and essaying how far imagination, on our side, could carry us in fancying the most startling of absurdities, and how far, on that of the public, people knowing the Council would be willing to give credence to the monstrosity. Alas, how mighty dull is the world! Have we not often enough laid down the only axiom that can be applied with accuracy to the doings of this drollest of scientific juntas? Have we not often enough affirmed, that when a man wants to know with certitude their next act, he has only to sit down and fix on the most absurd his imagination can supply? That the appointment of Mr. Paget is absurd—that its announcement looks unquestionably a hoax—that a reasonable man might even see him in the professional chair and yet rationally enough, yielding to the force of moral testimony, refuse to believe his senses—is the reason, the very reason, why there can be no doubt of the certitude of the fact. There is in such matters, in truth, more than the brevity and force of syllogistic reasoning. It is absurd: therefore the Council have done it.

We wish not to be understood as undervaluing the ability of Mr. Paget. None will bear more willing or liberal testimony to his merits as a physiologist than ourselves. We are proud of the physiological distinction he has, in our opinion at least, so fully, if early, vindicated for himself. We would be the last to detach one leaf from the laurel wreath with which a part, at least, and a worthy part of the profession would decorate his brow. On the contrary—we say to him, "As a young man, you have done much: the field you have chosen is far from explored: proceed, and, by not diverging, show that the homage we have paid, as much to your promise as to your performance, has neither been unearned nor unappreciated." But it is one thing to bear handsome testimony to a young man's physiological industry, and another to offer him to Great Britain and Ireland as the Gamaliel of modern

surgery. Just, indeed, in the proportion of our friendliness to Mr. Paget would be our anxiety to save him from a position of which he, of all the world, must be the most conscious of undeserving. Strange would be the blindness and the infatuation which would leave him ignorant of the fact so well known to all others, that the partisan fervour that now encompasses him is a fervour that but glows to destroy—that but raises to dash down. No man, if this appointment be completed, will have more cause than he to complain of the unkindness of too much kindness—or more reason to deplore the calamity of having shown merit. His immolation on the altar of surgery will be the sad price of the devotion paid by him to that of physiology; and we shall have in him another illustration that "*ex quo vis ligno*"—there is not made a Priapus, more than a Mercury.

It would, of course, be very unreasonable, and almost give evidence of some harmless insanity, to ask from the Council of the Royal College of Surgeons of England the appointment of a Professor of Surgery who could adequately represent our science in the eyes of Britain and of the Continent. To harbour so reasonable an expectation would be the surest evidence that we did not know our men. But, surely, if we might not expect the selection of a Fergusson, a Phillips, a Partridge, or a Quain, we might yet have looked forward to the appointment of a man who had really seen and had some tolerable share of surgical practice, and whose distinction it was not that he had not devoted himself to surgery. Mr. Paget became a member of the College of Surgeons, comparatively, but yesterday, his diploma not dating beyond 1836. He has never been surgeon to any hospital or public institution; his comparative youth, his laudable devotion to physiology, and his numerous essays on the subject, as well as his Wardenship of the Bartholomew College—these circumstances put any extensive private practice without the pale of possibility: on what pretext, then, or reason, can he be selected, to the rejection of hundreds of others, to stand forward—how rude a trial for him!—to teach surgery to thousands of gentlemen in every way—in years, in surgical practice and knowledge—his seniors and superiors? We have but one explanation. Have the Council resolved that the public orations and lectures their charters enforce on them shall not be wholly useless or uninteresting?—that, if conveying no instruction to the public, they shall administer, at least, some little satisfaction to themselves; and have they hence ingeniously converted them into practical insults on the oft-insulted members? Certainly there is better taste and more argument, if the object be to prove the members "*geese*," in making Mr. Paget teach them surgery, than in instructing Mr. Lawrence to apply to them—to their faces too—the epithet itself: a Paget-taught auditory of surgeons require neither the acumen nor the high breeding of a Lawrence to indicate their true name, especially if they have wisely undergone beforehand the operation of having had extracted their golden egg—the twenty-guinea-diploma fee.

In dismissing this subject for the present we



cannot avoid the remark, that amidst the decline and fall of the College there is one utility it yet promises to possess—that of a snug sort of appanage to Bartholomew's Hospital. The president is imposed on it by Bartholomew's; so is it vice-president. The conservator is a Bartholomew man; its only two professors enjoy the same distinction. It has one chemical analyst—Mr. Taylor—and he comes from Bartholomew's; and of its three students, two come from the same quarter. Indeed, all things considered, the College will not be entirely itself—*totus teres et rotundus*—nor have reached its true destiny, until it shall wholly and beyond a doubt have sunk into a back office of that ancient charity—taking its rulers from the hospital on much the same principle as it takes its other subjects from the neighbouring Institution, Newgate!

#### COURT OF QUEEN'S BENCH, Jan. 30, 1847.

(Before Lord Chief Justice DENMAN, Mr. Justice COLERIDGE, and Mr. Justice WIGHTMAN.)

#### THE QUEEN V. COOKE AND ANOTHER.

Mr. Cockburn said he appeared to show cause against a rule for a criminal information obtained at the instance of Mr. Wakley, coroner for the western division of the county of Middlesex. An inquest was held on the body of F. John White, a private soldier of the 7th Hussars, who suffered the punishment of flogging on the 15th of June, 1846, and died on the 11th of July. The inquest was held on the 15th of July, when it was adjourned a week. The alleged libel appeared in the *Medical Times*, of August 1st, and was an article commenting on the proceedings at the inquest and the conduct of the coroner. The best course would be to read first the alleged libel, and next the affidavits on each side.

Lord Denman: You speak of comments. Not comments, I suppose, on what has passed out of court, but comments on what has passed in court?

Mr. Cockburn: Comments on what has passed in court, of course; but there are other comments necessary also, such, for instance, as will arise out of the affidavits as to the proceedings of Mr. Wakley, calculated to make good the position that he is not a person entitled to come to this court for protection by means of any extraordinary power with which the law may have invested it. The grounds on which I ask your lordship to consider this case favourably to the defendant is, that the affidavits show so much in the conduct of the coroner which is irregular, both in the mode of conducting the inquest and in his own conduct subsequently, in commenting on the alleged libel, openly at a public meeting, and in the House of Commons, as to disentitle him to come here and ask at your lordships' hands the extraordinary protection which he is now here to seek; from which your lordships will see that he has carried the liberty of commenting on the conduct of others to its full extent, and has been in the habit of taking liberties both in speech and in print, and is therefore not the man who should come here to ask for criminal informations against persons following his own example. I will read to your lordships that article complained of, from the *Medical Times*, of Aug. 1, 1846. It begins with a quotation from "Lear":—

"See how yon justice rails upon yon simple thief. Hark, in thine ear: change places; and, handy dandy, which is the justice, which is the thief? \* \* \* Get thee glass eyes; and, like a scurvy politician, seem to see the things thou dost not."

And goes on to say:—

"Never were we more convinced that, in the indignation at a large abuse, all sense of its minor contingencies is often prejudiced and marvellously misled, than while ruminating on the circumstances of the late inquest on White, the alleged victim of flogging barbarities. As a whole, such a gross—

Lord Denman: I don't see much benefit in reading all this now. I suppose it will have to be read again by-and-by?

Mr. Cockburn: My lord, it is difficult to separate one part from another. Perhaps the shortest way will be to take the whole as it stands, and I shall afterwards remark upon such passages as I may think most important.

Lord Denman: Very well.

Mr. Cockburn resumed his reading:—

"As a whole, such a gross, perverse, and hideous caricature on English administrative justice, in the name of justice, we never witnessed. Beyond the unvoidable good of subjecting to public animadversion the Vandalism of all military flogging, there is not a feature presented to us *judicially* in that investigation, that commands respect, or deserves aught but censure or contumely. There was something absolutely execrable in the coroner's farcical impersonation of judgeship. Legal axioms, and the spirit of English jurisprudence, make the judge the counsel of the accused: here the coroner had no thought, word, or act, save for inculpation. Coroner Wakley seemed like a man compromised to infamy, or worse—personal unhappiness—if it should be proved that White died without murderous guilt in some survivor. This medical magistrate would evidently not conceive the hypothesis that some brother medical practitioner had not betrayed the trust of humanity, and proved himself an assassin. The anxiety of the merciful president of this dignified court appeared to be to clothe every act with criminality, and strip every circumstance of innocence. He *coaxes* private soldiers into conjectural charges, and tries to bully medical witnesses out of honest convictions—all to throw blood at the door of a worthy medical brother. He suggests, insinuates, applauds, encourages, assails—twists, twirls, and manœuvres—in every shape, form, and direction, to conjure up against an honest practitioner a fictitious semblance of murder! Why all this? Why this reckless sacrifice of good men's repute and peace of mind? Why this needless display of ingenuity to get up against Dr. Warren, or failing him, Colonel Whyte, or failing him, the farrier, a colourable semblance of murder? There is of course but one reply—*Wakley wants a public sensation to help his fortunes in a forthcoming election*. There is something to excite the gravest reflection in this frightful prostitution of an English magistracy to the purposes of a popularity-seeking politician. There is no knowing where it may end or to what perils it may carry us. The very needs of a fiercely competing press, deprived of great political events for discussion, yet requiring for successful sustenance the aid of strong popular sensations—the very needs of such a press suggest fearful dangers from this unscrupulous use, by judges, of the machinery of law to the purposes of political emergencies. Not only is the whole idea of administrative justice brought into disrepute by the incongruous melodrama, but an illicit means of popular power is evoked, which, supported by anything like character and sustained ability, would lead to very great public mischief.

"Flogging is an *institution* of the army, rude and brutal, that cannot too soon be done away with. If our soldiers be of so low a nature that they are ungovernable without it, the causes of the anomalous degradation should be removed, that our country may be relieved at once of a horrible evil, and, if possible, a still more horrible corrective. But flogging being an existing legality, to be administered by the officers of the army, with no more chance of escape than a judge of the land possesses when called on to execute the worst law on the statute-book, it behoves us, as a first duty in an inquiry like this over White, not without the strongest possible grounds of inculpation to throw the inevitable evils of a bad system on those whose duties make them its administrators. Now, what are the facts of this case which distinguish it from any others occurring under the operation of military law?

"First.—The sentence—150 lashes—though severe, is below the average punishment customarily awarded by military law for the offence—an assault on an unarmed superior officer with a murderous weapon, a poker. If the law be bad, correct it:

while it is as at present, military judges can do nothing but enforce it.

"Secondly.—The administration of the punishment was attended by no peculiar circumstances of severity. White enjoyed, it is fair to presume, the customary robust health of a young English soldier on constant duty. Dr. Warren, after a minute examination, certified, under official responsibility, to the fact. The flogging was perfectly of the usual character; the evidence, though somewhat discrepant, leaning to the supposition that it was rather lighter than severer; and Dr. Warren's non-interference favouring the hypothesis. The flogging took place on the 15th of June; the usual course to convalescence went on till July the 4th, when he was officially declared well and fit for duty: but instead of being discharged on the 6th, to his duty, as it was intended, White betrayed on that day *commencing* symptoms of some internal disease. For the first time he complained of pains in the region of the heart. After five days' illness, he died on the 11th of July, evidently of an acute disease—twenty-seven days after the flogging. Dr. John Hall, a staff-surgeon, sent down to Hounslow to see the patient on the day of his death, thus describes the progress of the disease, in a letter written on the same day to Sir James M'Gregor:—'White, it appears, received a corporal punishment of 150 lashes on the 15th of June, for military insubordination, which was inflicted in the usual manner, in the presence of Dr. Warren, and without any degree of severity calculated to attract more than any degree of ordinary attention. His back healed kindly, and nothing occurred to mark his case until the morning of the 6th instant, the day on which he was to have been discharged from the hospital to his duty, when he began to complain of pain in the region of the heart, extending through to the back and shoulder blade, which increased in severity, notwithstanding the measures adopted by Dr. Warren for its relief, until yesterday morning, when paralysis of the lower extremities and retention of urine were discovered, and he died, as I have stated above, at a quarter past eight o'clock this morning.'

Here, my lords, is inserted a statement of the *post-mortem* examination of the body made by Dr. John Hale, in the presence of Dr. Warren, surgeon of the 7th Hussars, and Dr. Reid, Assistant-Staff-Surgeon of the army, a staff surgeon of the first class, twenty-four hours after death:—

"*Post-mortem* examination of private Frederick White, of the 7th Hussars, aged 27, made 24 hours after death, in presence of Staff-Surgeon Dr. Hale, Surgeon Dr. Warren, 7th Hussars, and Assistant Staff-Surgeon Dr. Reid.

"*General Appearance*.—Body muscular, and not much wasted; marks of venesection at the bend of the right arm; marks of a blister on the epigastrium, and of another on the back, below the scapulæ; marks of corporal punishment across the shoulders, particularly over the right scapula, but the punishment does not appear to have been severe, and the part where it was inflicted was quite healed; back discoloured from the gravitation of blood since his decease. Thorax—right side—old adhesions binding the lung to the ribs and diaphragm throughout its whole extent: left side—inflammation of the pleura, with recent adhesions, and effusion of serum, containing shreds of lymph to the extent of 12 oz.: lung engorged and infiltrated with serum. Heart.—Muscular tissue soft and friable throughout; endocarditis on both sides of the heart, the inflammation extending some distance along the pulmonary artery, and over the valves of the aorta; cordæ tendinæ of the tricuspid valve matted together with fibrine; pericardium healthy, and not containing more than its natural quantity of fluid. Abdomen.—Liver enlarged, and extending three inches below the margin of the ribs, but not altered in colour or structure, though there are old traces of inflammation on the peritoneal covering of the right lobe; gall-bladder small, and containing a portion of pale-coloured bile; kidneys, bladder, and spleen healthy; intestines distended with gas, but healthy. Head.—Dura mater healthy; pia mater injected, and the tunica arachnoides opaque in several places, similar to what is generally found in confirmed drunkards; lateral ven



tricles capacious but empty; plexus choroides enlarged, and the veins running along the floors of the ventricles distended; substance of the brain marked with bloody points when cut into, and softened at one point on its under surface. A portion of integument was dissected from off the shoulders and spine, where he had been punished, and all the parts underneath were found perfectly sound and natural. The integument itself, with the exception of some discoloration of the cutis vera, was quite healthy.

"JOHN HALL, M.D.,  
Staff Surgeon, First Class.

"July 13."

The next document quoted in the allegation is a certificate, signed by the three medical men who attended the *post-mortem* examination:—

"Cavalry Barracks, Hounslow, July 13."

"Having made a careful *post-mortem* examination of private Frederick White, of the 7th Hussars, we are of opinion that he died from inflammation of the pleura and of the lining membrane of the heart; and we are further of opinion that the cause of death was in nowise connected with the corporal punishment he received on the 15th of June last."

"JOHN HALL, M.D., Staff Surgeon,  
First Class."

"J. L. WARREN, Surgeon, 7th Hussars."

"F. REID, M.D., Assistant Staff Sur."

Then follows the evidence of Dr. Hall, Dr. Reid, and Mr. Day of Isleworth.

"Dr. Hall tells us:—He was treated for inflammation of the pleura of the heart. There were found, on examination, old and strong adhesions on the right side of the heart, and inflammation and recent adhesions on the left side. The pleura pulmonalis and pleura costalis were inflamed; the lungs were not inflamed. The pulmonary artery and the aorta were inflamed for an inch and a half; the pulmonary vein was very slightly inflamed. The inflammation extended from the heart to the larger vessels. There was no inflammation of the pericardium. The cause of death was inflammation of the heart and pleura, but it was impossible to say what was the cause of that inflammation. I have seen the history of the case given in the register, and I should ascribe the inflammation to the change of temperature at the time the deceased was recovering. A change of weather, bringing rain and cold winds after great heat, took place in the end of June. A corporal in the regiment I know died yesterday from inflammation of the lungs. I do not think that the death of White had any connection with the punishment he received."

"Dr. Reid says:—I have heard Dr. Hall's evidence, and agree in it. I look on the endocarditis as the immediate cause of death. The lining membrane of the heart was of a deep red, and this was not from the imbibition of blood, for it was not present; nor was it from decomposition, for the heart was not decomposed. The membrane was thickened by effused fibrine, and soft and slightly adherent. The membrane itself was readily torn from the heart, showing the decreased vital cohesion, and there were polypiform concretions of uncoloured fibrine adherent to and interlacing the fleshy columns and the cordæ tendineæ. That proves the inflammation to have been recent. In the left lung there was pneumonia in the first stage, but I do not attach much importance to that. The marks of pleurisy on the right side, and of inflammation in the liver, were of old standing."

"Mr. H. G. Day, M.R.C.S. and L.A.S., says:—I live in Church-street, Isleworth. During his life I did not see the deceased man, but on the Thursday after the death, I examined the body in the presence of my partner, at the barracks. I knew nothing of the history of the case previously. I opened the cavity of the chest and abdomen, and found the parts very much decomposed, and, of course, out of their usual position. The heart appeared rather smaller than usual, and of a softened texture. It had been cut open in each direction. I saw nothing decided about the lining of the heart, though it appeared rather inflamed and redder than usual. The lungs appeared gorged, particularly the left side. There were

traces of inflammation on the left pleura, but I cannot speak of adhesions, as they had been torn through. The portion covering the ribs was more inflamed than that covering the lungs. The body was in a very decomposed state, and it was difficult to make observations. The liver looked larger than usual, and I thought rather paler. I have heard all the evidence thus far, and I think the cause of death was pleurisy and pneumonia. I suppose the death was caused by change of temperature and exposure to cold."

The article then goes on to say—

"One might fancy that with all this evidence of four medical men, all in strict coherence and mutual support—and with all this natural sequence of morbid phenomena which are occurring in everyday practice—that there was really very little of the mysterious, or the marvellous, or the extraordinary, in this poor man's death. Every circumstance, indeed, seems to have concurred to strip the business of what, in theatrical language, may be described a startling situation, or dazzling effect. But the sagacious, popularity-seeking coroner was not to be disappointed. He had opened the public's mouth with wonder and curiosity, and it would be hard indeed if, with his unscrupulous ingenuity, he could not get something wherewith to fill or amuse it. Accordingly his *protégé*, Mr. E. Wilson, formerly sub-editor of the *Lancet*, 'Wakley's ambulatory *post-mortem* man,' as he is generally called, was despatched to exhume the body a fortnight after the death—the three surgeons whose characters were implicated in the examination being carefully excluded by a special order of the prudent coroner (that coroner who makes such public scenes to have the accused *present* at inquests to hear the evidence alleged against them). A body in the last stage of decomposition, after a fortnight's interment, during the heat of one of the hottest of summers, is an excellent subject for finding in it whatever may be wanted; and the coroner's scientific hanger-on and partner in *post-mortem* fees is not long in finding out a pathological 'discovery' which had never been made before,—we quote his own words—'A discovery not to be found in any volume yet published.' The microscope, that disenchanting instrument, which, in the hands of the youthful, ardent, unscrupulous, fame-seeking discoverer, has penetrated already the innermost recesses of organic nature, shown us the primordial cell of this nether world, verified by intuitive evidence, the wildest theories of the Greek philosophers, and through which the imaginative anatomist may, with every facility, see whatever he likes, shifting his glasses with phantasmagoric effect,—this wonderful instrument of talismanic qualities enabled the writer of 'Healthy Skin,' a book, he is happy to say, that is out of print, to detect in the deepest muscles of a putrid corpse injuries they never could have sustained—muscles unapproachable even by convulsive action—and to 'discover' that they occupy a position in regard to the membranes of the chest which they have never been known to hold since the creation! We appeal to the common sense of any medical man; if credence can be placed in the testimony of any writer—whether he be a book-compiler or not—who tells a public court that the multifidus spinæ lies on the membranes of the chest; that an inflammatory action, arising from a disorganized muscle, can traverse a plate of bone of at least half an inch in thickness; and that a muscle whose actions at all times must be of the feeblest character (and which in the grown man is of a half-tendinous structure, and therefore, not susceptible of the smallest action under any circumstances) can be suddenly seized with convulsions which spare the enormous and energetic superimposed masses of muscle from the longissimus dorsi to the integument;—masses of muscle so susceptible of convulsive action themselves that, from a slight injury to the foot or head, they bend the body back into an arch, presenting the frightful appearance of opisthotonos. We are almost ashamed to dilate on the ignorance and bad intention of this enormous blunder, including under it a succession of blunders, any one of which would be damning to the youngest country apothecary. The 'Healthy Skin' gentleman, to

suit the wants of his friend the coroner, swears that layers of muscles of enormous power, and quick sensibility from their contiguity to the integument, remain passive, though all but touched with the instrument of punishment, while a muscle almost devoid of muscular action, and seldom, if ever, used in the adult (to show which an anatomist resorts to a subject of not more than fifteen years of age, so early does it lose its muscular character)—is endowed by him, in the teeth of all science and experience, with the opposite qualities to those which it possesses, and ignorantly displaced from its natural position to be brought in contact with a membrane which it cannot touch, and all this to give a colour to a charge of legal assassination against a body of gentlemen—one of them a medical brother—for simply performing, and with extreme reluctance, those duties for which they are held responsible by their country. We believe that such a 'discovery,' and for such a purpose, never before formed the distinction of an English anatomist, and, we hope devoutly, never will.

"We give this worthy person's evidence from the *Times*. A more unblushing piece of professional quackery, got up between himself and the coroner, including the address of the practitioner, we never read; and we will only further observe in reference to it, for the sake of our unprofessional readers, that Mr. Wilson's 'discovery' is not mended by the ingenious device of extending the alleged pulpy degeneration of the muscle to the adjoining part of the external intercostals—muscles to which he has vaguely alluded, prudently, however, withholding their name for reasons known to every anatomist and physiologist."

"Mr. Erasmus Wilson, the next witness called, said:—I reside at 55, Charlotte-street, Fitzroy-square, and my profession is that of a surgeon. I am a Fellow of the Royal College of Surgeons, Edinburgh; Consulting Surgeon to the Royal College of Surgeons of London, and Lecturer on Anatomy and Physiology. Some years ago I was Demonstrator in the University College. I have written a work on diseases of the skin, and another work entitled 'Healthy Skin,' which I am happy to say is out of print. Mr. Wilson then read the following statement of the observations made by him on examining the body of the deceased, and the conclusions which he drew from those observations:—

"On Wednesday, July 22, I made a *post-mortem* examination of the deceased, my attention being especially directed to his back and spine. On the skin over each shoulder there were marks of lashes, and on the right of the middle line between the shoulders there was a large gap, occasioned by the removal of a portion of the skin. A small bottle containing a piece of skin was handed to me by the sergeant of police. I took the skin from the bottle, and found that, though much shrunk by immersion in spirits of wine, while the gap from which it had been removed was stretched to its utmost, yet that it corresponded with the gap, with the exception of the side nearest the middle line, where a part had been cut away and lost. I was informed that the last piece had been cut away in order to make the remainder sufficiently small to enter the bottle. From the position which the last piece occupied, I believe it was more protected from the lashes than the preserved portion, and, therefore, being less interesting, in a medical point of view, had been cut off. On the preserved portion of the skin there had been several marks made by lashes; the marks were red, and, upon cutting into one of them, I found that the redness, which was indicative of inflammation, extended through the entire substance of the skin. On raising the muscles or flesh from off the ribs and spine, I find a part of the deepest line of muscles, viz., that which lies in contact with the bones, in a state of disorganization, and converted into a soft pulp; in medical language, I should call this a pulpy softening of the muscles. The seat of this pulpy softening was the sixth and seventh ribs, near their attachment to the spine, together with their intervening space, and the hollow between the sixth and seventh pieces of the spine. The extent of the disorganization was about three inches in length, by about one inch and a half



in greatest breadth, and between a quarter and half an inch in thickness. In the space between the ribs the muscles had undergone this pulpy alteration, even so deep as the lining membrane of the chest, the softened muscles being in absolute contact with the lining membrane; that portion of the flesh which occupied the groove of the spine, and had undergone a similar disorganization, was one of the little muscles known to medical men under the name of the multifidus spinæ. In addition to softening of this little muscle, it was partly surrounded with blood. It was in a state medically called ecchymosed; the interior of the spine was in a state of extreme decomposition; the tissue between the spinal canal and spinal sheaths was filled with a dark-coloured fluid, resulting from decomposition; the sheath itself was smooth and polished on its internal surface—a state indicative of health; it was perfectly devoid of nervous substance, which had been converted into fluid by decomposition, and had flowed away. The nerves remained, and presented a healthy appearance, so that, so far as the spine is concerned, I discovered no indication of disease. Two questions naturally arise out of the preceding examination—first, what was the cause of the pulpy softening of the muscles? secondly, could the state of disorganization, preceding the pulpy softening, influence the disease existing in the chest? The cause of the pulpy softening I believe to have been the excessive contraction of the muscles taking place during the agony of punishment. This excessive contraction would produce laceration, subsequent inflammation of the muscles, and the inflammation, instead of being reparative, would, in consequence of the depressed state of the powers of the nervous system of the sufferer, be of the disorganizing kind which results in pulpy softening. Had the man lived the disorganization of the muscles would, in time, have been repaired. As regards the second question, there can be no doubt that, although the common cause of inflammation of the contents of the chest is cold, acting in conjunction with physical or moral depression, and might have been the cause in the case of the deceased, yet the presence of a portion of muscle in a state of disorganization and inflammation, in close contact with the lining membrane of the chest, might be adequate to the production of the same effect. Certainly no surgeon would feel comfortable with regard to the state of his patient if he were aware of such dangerous proximity."

I now come to the second alleged libel inserted in the paper of the same date, which is in the form of an anonymous letter from a correspondent of the *Medical Times*, addressed to the editor, and signed "Fair Play." It is headed, "Mr. Wakley and his Fidas Achates," and reads as follows:—

"SIR,—In reading the evidence of Mr. Erasmus Wilson, before the coroner at Hounslow, on the flogging case, I was painfully struck with the incorrectness, to say nothing of the animus, of the witness, displayed in that evidence.

"Mr. Wilson is not a fair witness in this case, for the following reasons:—Mr. Wilson and Mr. Wakley have been intimately connected for several years. Mr. Wilson was tutor to Mr. Wakley's son, Thomas, junior. Mr. Wakley orders Mr. Wilson (his intimate friend) to examine the spine of the dead soldier, whose body had been twice examined before, informing him, at the same time, that he (Mr. Wakley) had a notion there was something wrong with the spine, which the other surgeons did not find out.

"Mr. Wilson obeys orders, and incontinently discovers a mare's nest, as much to please the coroner as for the purpose of puffing himself at the inquest. The mare's nest is called by Mr. Wilson 'a pulpy softening of the muscles,' which morbid condition he claims the honour of being the first to discover.

"This pulpy state of muscle is nothing else than decomposition of the parts, infiltrated by blood from gravitation, in a body which was dead for more than a fortnight before Mr. Wilson opened it, and in the hottest weather known for forty years. In the course of his evidence Mr. Wilson congratulates himself and the jury on—what do you think?

—that he discovered the real cause of death?—No such thing; but that his *books are out of print!* and then proceeds to edify the jury with his medical pedigree, with the sanction of the coroner. What had all this to do with the case in point?

"If Mr. Wakley wanted to puff his friend, he should confine himself to the pages of the *Lancet*, where, by-the-by, he abuses all puffery and quackery unconnected with himself, and not stultify the profession and impede justice by such silly puffing twaddle as passed between himself and his surgeon on Monday last.

"The whole case is evidently a got-up one—Mr. Wakley wants to puff himself with the public as a friend of the poor; and his friend Mr. Wilson wants to puff himself into practice. I am by no means a supporter of the flogging system, for I think it is brutal and barbarous; but, in the spirit of fair play and truth, let not an innocent and worthy officer be sacrificed in the attempt to put it down by a popularity-hunting coroner and a foolish surgeon. It is abundantly clear from the medical evidence that the cause of death in the case of the soldier White was not the lash, and even Mr. Wilson's evidence (although shaped to order) goes to prove this fact.

"That the effects of the lash penetrated through the mass of muscle (very considerable in the thinnest subjects) which flanks the spine, produced old adhesions, inflamed the pleura, the heart, its valves, earneæ columnæ, and leading arteries, besides engorging the left lung with serum, is an assumption so truly ridiculous in a medical point of view, that were it not for the approaching general election, and the dearth of popular subjects for electioneering purposes, I should be inclined to think the hon. member for Finsbury demented, and his garrulity at the Hounslow inquest a melancholy exhibition of an effete intellect.

"July 28th."

"FAIR PLAY."

These, my lords, are the alleged libels on which the Attorney-General obtained the rule. I now beg to call your lordships' attention to the affidavit made by Mr. Wakley; it is a long document; I shall, therefore, present the principal points as briefly as possible. Mr. Wakley states that "he is one of the coroners for the county of Middlesex, and that on the 14th day of July last he was waited upon by a police-officer, who was the bearer of a letter purporting to be written by the Rev. Mr. Trimmer, the vicar of Heston, in the county of Middlesex, and addressed to this deponent, in which the writer informed him that application had been made to him, the vicar, to bury the body of a soldier then lying in Hounslow Barracks; that he, the vicar, had made inquiry of the sergeant as to the cause of the death of the soldier, and informed him, Mr. Wakley, that he had notified to the commanding officer by the sergeant, that in his opinion it was of importance that an inquest should be held, and that he, therefore, submitted the facts to him, the coroner, for the exercise of his judgment thereon." The letter was signed, "H. S. Trimmer," and dated from Heston Vicarage, July 14, 1846.

The affidavit goes on to say, "that in consequence of this letter he, the deponent, sent a message to William Brent, the constable at Heston, directing him to proceed to the barracks and see the body of the soldier; that, before the message reached Hounslow, William Brent, the constable, himself waited on him, bearing a message from Henry Pownall, Esq., a magistrate for Middlesex, informing him of the death of the said soldier, and that certain reports were abroad as to the cause of death. That this deponent ordered Mr. Brent to make inquiries at the barracks, concerning the death of the said F. J. White, and make report to him; and that when he had done so, in consequence of the information given in that report, and of the communication made by Mr. Pownall, he, the deponent, issued his warrant, directing the constable to summon a jury to meet on the 15th of July, to make inquiry concerning the death of White; that he, the deponent, was informed that the said White had been a private in the 7th Regiment of Hussars, and had died in the regimental hospital on the 11th of July, having received on the 15th of June, under sentence of court-martial, 150 lashes on his back and shoulders, inflicted by two farriers

of the regiment with whips; that the jury met on the 15th of July, and were sworn; that finding a post-mortem examination had been made, and that the back had not been further examined than by the removal of a portion of the skin, and that the muscles and spine had not been examined by dissection, and that the surgeons who had made the post-mortem examination had come to a final conclusion as to the cause of death, the nature or terms of which he, the deponent, was altogether unacquainted with."—I (Mr. Cockburn) request your attention to that point, as I shall be able to show your lordship there is reason to believe that the coroner was acquainted with their opinion.—"That he, the deponent, requested the jury to name some surgeon in whose judgment they could place confidence, to make an examination of the body, that his evidence might be heard at an adjourned inquest, and that, with the other surgeons who had examined the body, he might state his opinion as to the cause of death. That the jury nominated Mr. Horatio Grosvenor Day to examine the body, and that he, the deponent, signed an order to that effect, and adjourned the court to the 20th of July. That on the appointed day the court sat again, and after taking evidence as to the nature and extent of punishment received by White, and his condition before and after, he was about to proceed with the medical evidence, when, from a casual remark that fell from Mr. Day before he was sworn, he was led to inquire of Mr. Day if he had examined the muscles of the back and spine of the body? when Mr. Day said he had not thought it necessary, nor had he done so; but that he considered he had made a complete examination, and that he had ascertained the cause of death, although he had not examined the back and muscles; that this deponent observed to and before the jury, that in his (the coroner's) opinion, Mr. Day, by omitting such examination, had involved the court in a difficulty, and that, in discharge of his duty, he could not take any medical testimony as to the cause of the death of White, until a further post-mortem examination, of the body had been made; and that he, the deponent, thought this the more necessary, as it appeared at the inquest that the deceased had lost the use of his lower extremities two days before death; that, at the close of the business of the inquest on the 20th of July, after the room had been cleared of strangers, he was requested by the jury to name some surgeon living in London, having no connection with any of the parties concerned, or with the neighbourhood, to make an examination of the body; and that the deponent then stated he should appoint Mr. James Erasmus Wilson for that purpose, upon which this deponent adjourned the court until July 27; that, in passing along Oxford-street, on his return from the inquest, he, by accident, met Mr. Wilson, whom he informed that he had just returned from an inquest, at which he, the deponent, had named him, Mr. Wilson, as a surgeon to complete the examination of the body, and that the surgeon who had examined it already had omitted to examine the back or spine, and asked him, Mr. Wilson, if it would be convenient, to do so, and attend and give evidence on the inquest; and that Mr. Wilson consented; that he, the coroner, afterwards gave to Mr. Wilson the usual legal authority for so doing; and that, from the time of meeting Mr. Wilson in Oxford-street on the 20th of July, until the examination at the inquest on the 27th of April, he, this deponent, had no communication with him upon or relating to his, Mr. Wilson's examination of the body; and until that time, he, the coroner, was ignorant of the opinion formed by Mr. Wilson from such examination; and, further, that he, the deponent, gave orders for the exhumation of the body, with directions that the regimental surgeons should be excluded from that examination; that he, the deponent, selected Mr. Wilson to make such examination, because he knew him intimately as a surgeon of great acquirements, and specially qualified, from his having devoted much time to the investigation of diseases of the skin—"When," said Mr. Cockburn, "it was the spine, not the skin, that was to be inquired into?"—and that he considered him a man of ability and integrity. He then says that he has occasionally, since he has been coroner, issued



orders to Mr. Wilson to make *post-mortem* examinations at inquests, but not so often as to many other surgeons; and that, during seven years, for which he has been coroner, he has not issued twenty-five orders to Mr. Wilson to make *post-mortem* examinations; although, during that time, he had paid upwards of £1,400 to medical men as fees for making *post-mortem* examinations and for giving evidence at inquests. He then says that the court met again on the 27th of July, and heard evidence, and was again adjourned to the 3rd of August; and that, at the meeting of the court on the 27th of July, Drs. Warren, Hall, Reid, Messrs. Day and Wilson, were first examined by him on the inquest, and that, till that examination, he did not know the opinions of any of those gentlemen as to the cause of White's death; that Mr. Wilson gave evidence as to the state of the back and spine, and the other surgeons as to the cause of death; and that Mr. Wilson said he had no doubt that death had happened in consequence of the flogging; but that Drs. Hall, Reid, and Warren stated their opinion that the death of White did not happen in consequence of, nor was connected with, the lashes received; and, further, that, after hearing all the evidence given before him as to the cause of death, he proceeded to sum up to the jury the said evidence, making such observations as in his judgment were proper for him in the discharge of his duty as coroner; and that, after his summing up, the jury retired for upwards of an hour, and came into court with the following verdict; that is to say—'That on the eleventh day of July, one thousand eight hundred and forty-six, the deceased soldier, Frederick John White, died from the mortal effects of a severe and cruel flogging of one hundred and fifty lashes, which he received with certain whips on the fifteenth day of June, 1846, at the Cavalry Barrack, on Hounslow-heath, at Heston, and that the said flogging was inflicted upon him under a sentence passed by a district court-martial, composed of officers of the 7th Regiment of Hussars, duly constituted for his trial. That the said court-martial was authorized by law to pass the said severe and cruel sentence, and that the said flogging was inflicted upon the back and neck of the said Frederick John White by two farriers, in the presence of the said John James Whyte, the lieutenant-colonel, and James Low Warren, the surgeon of the said regiment; and that so, and by means of the said flogging, the death of the said Frederick John White was caused.' And this deponent further saith, that the said jury, in giving and returning the said verdict, stated that they 'could not refrain from expressing their horror and disgust at the existence of any law amongst the statutes or regulations of this realm, which permits the revolting punishment of flogging to be inflicted upon British soldiers; and, at the same time, the jury implore every man in the kingdom to join hand and heart in forwarding petitions to the Legislature, praying in the most urgent terms for the abolition of every law, order, and regulation, which permits the disgraceful practice of flogging to remain one moment longer a slur upon the humanity and fair name of the people of this country.' The deponent further says that throughout the whole proceedings in calling in the testimony of Mr. Wilson, he was not actuated by any improper motive, but by a desire to discharge his duty. He then puts in the libel, which has been read to your lordships, from the *Medical Times* of August 1, and makes oath that he believes it refers to him and his conduct concerning the inquest. After which he makes oath that, on holding the inquest, his sole purpose was to discover the cause of death, and properly discharge his duty, and that 'he was not, upon the occasion of holding and taking the said inquest, actuated by any of the improper motives imputed to him by the said first-mentioned libel, nor had he in view any such unworthy, corrupt, or criminal purposes, as by the said first-mentioned libel in that behalf imputed to him; that he did not, upon the holding or taking of the said inquest, wish to cause it to ap-

pear that any person had been guilty of murdering the said Frederick John White, or had criminally caused his death; nor did this deponent at or upon the holding or taking of the said inquest, or at any other time as in the said first-mentioned libel alleged, coax any private soldiers, or any other person, into conjectural charges, or try to bully medical witnesses, or any medical or other witness, out of honest convictions; or suggest, insinuate, applaud, encourage, assail, twist, twirl, or manoeuvre in every or any shape, form, or direction, to conjure up against an honest or any other practitioner a fictitious semblance of murder, as in the said first-mentioned libel alleged; nor did this deponent, either at or upon the taking and holding of the said inquest, or at any other time, attempt or endeavour to get up against Dr. Warren in the said first-mentioned libel mentioned, being the said James Low Warren, or failing him, against Colonel Whyte in the said first-mentioned libel mentioned, or failing him, against the farrier in the said first-mentioned libel mentioned, a colourable semblance of murder as in the said first-mentioned libel insinuated, imputed, or alleged; and that this deponent did not by his conduct or by anything which he either said or did at, upon, or relative to the holding or taking of the said inquest, wish or intend to excite or create a public sensation to help his fortunes in a forthcoming election or any other public or political sensation whatsoever, or wish or intend to puff himself with the public as a friend to the poor. And this deponent for himself further saith that he has never or in any manner whatsoever participated or been partner with the said William James Erasmus Wilson in any fee or fees whatsoever, payable or due to or received by the said William James Erasmus Wilson for any *post-mortem* or other examination of any human or other body whatsoever made by the said William James Erasmus Wilson, or any *post-mortem* fee or fees, as in and by the said libel first above-mentioned alleged or supposed; and that he this deponent never charged as paid to the said William James Erasmus Wilson by this deponent any fee, fees, or money whatsoever which had not been previously fully and wholly paid by this deponent to the said William James Erasmus Wilson, as in and by the said first libel is insinuated or alleged; and that he did not directly or indirectly order, instruct, or suggest the said William James Erasmus Wilson to make his examination or shape his evidence thereunder in any manner howsoever, so as to give any particular result, turn, or bias whatsoever, as in the said second libel is supposed, insinuated, or alleged."

That, my lords, is the affidavit by which the application is supported. The court would perceive by the affidavit, and by the 6th and 7th William IV., that nearly the whole of the proceedings were irregular. It would be idle to say that Mr. Wakley—who for so long a period had been a coroner for Middlesex, and who was continually making orders under the act—could be ignorant of its provisions. According to that act, the regimental surgeon, and those other military medical officers who conducted the *post-mortem* examination, should have been first admitted in evidence. By the 6 and 7 Will. IV., cap. 89, it is enacted, that when a person on whom an inquest shall be held, has been attended by a medical man, that practitioner shall be first called in; or, if no medical practitioner has been in attendance upon the deceased during his illness, then, that some one in practice near the place where death has occurred; and, if such evidence is not satisfactory to the greater number of the jury, they shall request the coroner, in writing, to name another.

The proper course to be pursued here was clear: the military medical man who had attended the deceased during sickness, and those gentlemen who made the first *post-mortem* examination, should have been examined before the jury; and, if they were dissatisfied, they might request the coroner, in writing, to appoint another; but, instead of calling before them this witness, the jury nominated Mr. Day, of Isleworth, to make an examination; of which, however, I do not complain;

and, before he is examined, the coroner asks some question, and, because he is not satisfied with the manner in which the *post-mortem* has been made, he thinks proper, he says on the suggestion of the jury, to appoint some one, of London, not from the neighbourhood, to make another examination, and give evidence with the first surgeons. My lords, I submit that the conduct of the coroner, in passing by evidence of the existence of which he must have been aware is most irregular. Afterwards, he tells us, on his return, passing along Oxford-street, he meets Mr. Wilson, and tells him that he had named him to make an examination, and also told him that the other surgeons who had examined the body, had neglected to examine the back and spine; and that Mr. Wilson consented. He then, my lords, issued an order to Mr. Wilson to examine the body, but strictly to exclude the regimental officers.

I now, my lords, come to the affidavit of Mr. Healey, one of the defendants. He says that he is the writer of the first supposed libel, and that he believes that the statements therein contained, unless as afterwards excepted, were true statements of facts that occurred on and about the holding of the said inquest, and that the conclusions contained in the said supposed libel were the fair and legitimate conclusions from the said facts, and that he wrote and published the said statements in the first supposed libel for the public benefit, and with no other feeling whatsoever; that the circumstances arising upon the inquest were of great public interest, involving questions of medical skill, and were, therefore, of much interest to the readers of the *Medical Times*; that the letter contained in the said alleged libel came to the office, and was inserted because he believed the statement and conclusions were true and legitimate, and that he does not know the writer's name. This deponent further says, that one Matthewson, a private soldier, was examined on the inquest, and that he and another private soldier, also examined, were the private soldiers alluded to in the said alleged libel, and that John Hall, doctor of medicine, James Low Warren, doctor of medicine, and Dr. Reid, were examined, and that these were the medical witnesses alluded to in the said supposed libel, and alleged to have been bullied by the said Thomas Wakley. And the deponent further saith, that the words, "partner in *post-mortem* fees," used in the alleged libel by the deponent, had reference to a certain fact previously alluded to in the said libel, and that the fact referred to was the unusual, and as the deponent believed improper, frequency with which the said Wilson was employed by the said Thomas Wakley, as coroner, to give evidence at inquests; and further, that he did not mean, in using those words, nor ought they to be construed to mean, that the said J. E. Wilson paid back to the coroner the fees or any portion of them so received, but that the said J. E. Wilson had, in that deponent's belief and judgment, so largely participated in the profits and fees which the said coronership could be made to yield to him as a medical witness and practitioner, that he was, to that extent and no further, a partner in *post-mortem* examinations and inquiries of the said coroner. And this deponent further saith, that Dr. Hall is, and has for some time been, abroad as Deputy Inspector-General of Hospitals; but this deponent has been informed by Dr. Hall that he was, as in the alleged libel stated, bullied while giving his evidence, and prevented by undue and repeated interruptions of the said coroner from submitting to the coroner and jury certain medical observations which he had, as this deponent believes, carefully prepared to be submitted to the court; and further, that Dr. Hall requested him to publish in the *Medical Times* such testimony as he had been prevented from submitting to the coroner and jury, and that such observations were published in the *Medical Times* of August 15, 1846, and in the following words, that is to say:—

"REPORT DRAWN UP TO BE READ AT THE INQUEST, BUT INTERRUPTED BY THE CORONER.

"After a careful consideration of all that I have



heard stated concerning the case of White, I am still of opinion that inflammation of the heart, lungs, and pleura was the immediate cause of his death, and I cannot, with satisfaction to my own mind, connect it with the punishment which he underwent on the 15th of June; nor can I subscribe to the novel doctrine which has been advanced by Mr. Wilson for that purpose; and, if you will permit it, I will briefly state why.

"Mr. Wilson states, that, on cutting down on the opposite side of the spine to that on which the integuments had been removed at the first *post-mortem* examination, he discovered pulpy softening of the deep-seated muscles to the extent of three inches in length, and one inch in breadth, but the superficial muscles over the part were all free from injury or change. He does not ascribe this changed condition of the deep-seated muscles to the direct violence of the lash, as they were protected from that, by their position, and by the super-jacent parts, but to excessive contraction during the agony of punishment, and subsequent disorganizing inflammation from nervous depression.

"Now, White was in the prime of life, and does not appear, by the statements we have just heard read, to have suffered much from nervous depression. It is strange, therefore, and unaccountable to me, why Nature should have made no effort to repair this injury, or that her efforts should have been of a disorganizing kind in this particular spot, while the process of healthy reparation was proceeding rapidly in other parts of his frame. The injury itself, too, is one of a novel kind, and difficult to reconcile to our preconceived opinions of the power and action of the small muscles alluded to. White, the witnesses all say, bore his punishment without any struggling, and Dr. Warren says he observed no spasmodic action of the muscles of the spine. Besides, had Mr. Wilson ever witnessed the infliction of corporal punishment, he would have seen that it is the superficial layers of muscles, which attach the shoulder blades to the spine, that are thrown into action, and, had any rupture of muscular fibre taken place from violent contraction, it would most likely have occurred amongst these, and not among the deeper seated ones along the spine, which have such limited contractile power, and are so well protected from injury.

"Mr. Wilson lays much stress on the injurious effects likely to have been produced by this altered portion of muscle lying in contact with the intercostal spaces; but it seems to have escaped his recollection, that the cavity of the chest on that side was filled with diseased and disorganized viscera, and highly putrid fluids, which were much more likely to have contaminated the adjacent muscles than that the small portion of pulpy fibre should have occasioned the extensive disease that was discovered within the chest. The only wonder is, after eleven days' exposure of the body at this hot season of the year, that the change of structure was not still more extensive.

"Mr. Wilson states that he has dissected or examined from five hundred to one thousand bodies in the course of his professional researches. I have also served much in warm climates, where deaths are unfortunately very common, and decomposition of the body after death very rapid, and I should say, from Mr. Wilson's description, that the change he observed was merely the first stage of putrefaction, and the ecchymosis around the small muscle nothing more than venous transudation which is apt to take place in congested parts. I regret that I did not witness these changes; and I here repeat my protest against the order which you gave for our exclusion from the examination.

"The first examination of White's body may be called a public one, as I was sent down from London by Sir James MacGregor's express order to be present at it, and I brought Dr. Reid along with me. Had a dozen medical gentlemen wished to be present, we should have made no objection, but, on the contrary, should have been delighted to have had the benefit of their opinions.

"The second examination was made at your suggestion by a gentleman of honour and known respectability in this neighbourhood, selected by the jury themselves. That examination Mr. Day has told you he had every facility afforded him of making, and he was uninterrupted, as no one, not even Dr. Warren, the surgeon of the regiment, attended; and the only professional person present when he made it was Mr. M'Kinlay, his own partner. So that he had a fair opportunity, the most prejudiced person will admit, of ascertaining the truth.

"Mr. Wilson's memoir, I admit, is drawn up with ingenuity, but of the truth and value of the novel physiological and pathological doctrines that it contains, the medical profession will be better able to form a correct opinion than this respectable jury.

"Mr. Wilson has also asserted, without any hesitation or qualification, that White would now be alive had he not been flogged; and in doing so, I think, he has stepped beyond the bounds that generally restrain prudent and conscientious men, and has assumed to himself a knowledge which belongs to Omnipotence alone.

"I now repeat, that, in my opinion, the exciting cause of the acute disease, which, all the medical witnesses agree, produced White's death, was more likely to have been the considerable atmospheric variation that occurred about the time that he was taken ill, than the flogging which he received on the 15th of June (three weeks before), and from which he is reported by Dr. Warren to have perfectly recovered.

"I am not, however, disposed either to deny or undervalue the well-known law of the animal economy, by which the internal parts sympathise with superficial injuries, but then it must be borne in mind, when inflammation of internal parts has been set up in this way, it has a peculiar character, and keeps pace with the external source of irritation; whereas, in White's case, the supposed source of irritation had ceased to act when he was taken ill. The appearance of the parts, when examined after death, was that of a recent acute inflammation, not of three or four weeks, but of a few days' duration:—There was effusion of serum into the cavity of the chest, and joining together of the pleura costalis and pleura pulmonalis, by soft coagulable lymph—two things rarely, or, I believe, never found when inflammation is excited by sympathetic action.

"The only chain of connection that we have between the punishment and the fatal illness of White, is the evidence of privates Matthewson and Riley, who state that they heard him complain of pain in his chest; but, as some of Matthewson's assertions have been positively denied by Dr. Warren, the jury must put their own construction on the value of the remainder. Riley's evidence is confined to one solitary instance, which occurred the second day after White's admission into the hospital, when he complained of a sense of weight between his shoulders, and a burning pain in his chest; but that complaint of burning pain was never repeated, and we have his confession, to Matthewson and others, that he was quite well a fortnight after his punishment.

"One thing is certain, White was apparently quite well on Saturday, the 4th of July. He assisted in cleaning out the ward, and volunteered to wash out an outbuilding of the hospital, on that day, two things indicative neither of acute disease, nor of pulpy disorganization of the muscles of his back; and when told by Dr. Warren that he would be discharged to his duty on the Monday following, he made no remark or complaint.

"Now, with the thermometer at 88°, which it was on the 4th and 5th of July, even light duty might produce sweating and fatigue, and it is possible, when so heated and fatigued, that he may have imprudently exposed himself to a current of air. On Monday, the 6th of July, the thermometer had fallen 20°; a variation considerable in any climate, and rarely witnessed, I imagine, in this country. Diseases of the chest were not uncommon during the months of June and July,

and one man, Corporal Barnett, of the 7th Hussars, has actually died of inflammation of the lungs, in these very barracks, since the investigation commenced.

"In the Millbank prison these affections have been common, and Dr. Baly, the physician of that establishment, in a note, dated the 31st of July, and addressed to me, states—'Since the commencement of May there have been nine cases of pleurisy, with copious effusion; two cases of pleurisy, with slight effusion; four cases of pneumonia, in two instances combined with pleurisy, and two cases of acute bronchitis: making a total of 17 cases of severe inflammatory disease of the lungs and pleuræ. I may remark that none of the men affected with these inflammatory affections of the chest had been subjected to corporal punishment, and that, with regard to the probable origin of their illnesses, I have been able to come to no other conclusion than that they were caused by casual chills, which the men were predisposed to suffer from, in consequence of the extraordinary heat of the weather having produced a relaxed and perspiring state of the skin. You are at liberty to make any use you may think proper of the information contained in this note.'

"I am glad to avail myself of Dr. Baly's kind permission, as it will show you and the jury that complaints similar to those of which White died were prevalent, and convince you that other medical gentlemen, besides those connected with the army and this case, entertain the opinion that they may be produced by atmospheric changes acting on a relaxed and moist skin.

"In conclusion, I beg to observe that I am not here as an advocate for corporal punishment; for of all the duties that medical men of the army have to perform, its superintendence is one of the most painful. But, in justice to the military officers, I must add, that whenever I have deemed it proper to arrest the punishment for medical reasons, and to recommend the man to be taken down, my suggestion has been received with apparent satisfaction, and acted on instantly.

"JOHN HALL."

"And this deponent further saith, that the said body of Frederick John White was, as this deponent is informed and verily believes, carefully examined on the 13th day of July last by the said Dr. Reid, and the said Dr. Hall, and the said Dr. Warren; and that their conjoint opinion as to the cause of death of the said Frederick John White, as this deponent verily believes, was sent to Sir James Macgregor, the Inspector-General of the Medical Department of the Army, was communicated to the officers of the said 7th Regiment of Hussars, and was matter of general knowledge at the barracks situate in Hounslow, as well as in the neighbourhood of the said barracks. And this deponent further saith, that the said body of Frederick John White was again examined by Horatio George Day, surgeon, of Church-street, Isleworth, and his partner, Dr. M'Kinlay, on or about the 16th day of July last, and that, as this deponent is informed and verily believes, the said Mr. Day, and the said Dr. M'Kinlay, concurred in the opinions of the said Dr. Hall, and the said Dr. Reid, and the said Dr. Warren, and that such concurrence of opinion, and the nature of such opinion so concurred in, were known, as this deponent is informed and verily believes, to the said coroner and jury, on or before the 20th day of July last; and this deponent further saith, that on the said 20th day of July the Right Hon. Fox Maule, her Majesty's Secretary of War, as the deponent is informed and verily believes, publicly mentioned to the House of Commons, for the information of the country, such concurrence of opinion, and the nature of the opinion so concurred in by the said Dr. Hall, and the said Dr. Reid, and the said Dr. Warren, and the said Mr. Day, and that such announcement of the said Fox Maule was published in most of the public prints. And this deponent further saith that the said William James Erasmus Wilson examined the said body of Frederick John White on the 22nd day of July last, and that, as this deponent is informed



and verily believes, the only circumstance of moment noticed or supposed to be noticed by the said William James Erasmus Wilson, in the said body, not noticed by the said John Hall, and the said F. Reid, and the said J. Low Warren, and the said H. G. Day, was a certain softness or pulpiness of a certain portion of muscle situated in the deepest part of the back, and being, of several layers of muscles, the layer farthest away from the skin of the said back; and that the said William James Erasmus Wilson, as this deponent is informed and verily believes, alleged or supposed that the said supposed pulpiness originated in degeneration of the muscle, which said supposed degeneration originated in inflammation, which said supposed inflammation originated in some supposed rupture received thirty-seven days before the said *post-mortem* examination was made by the said William James Erasmus Wilson; and this deponent further saith, that he is, informed, and verily believes, that the said William James Erasmus Wilson declared on oath, that the said difference between the observations of the said William James Erasmus Wilson, and the observations of the said surgeons who had preceded the said William James Erasmus Wilson, was this said hypothesis of the said William James Erasmus Wilson, which he designated a *discovery*, that was not recorded or spoken of in any book on anatomical or pathological science, and was made by him, the said William James Erasmus Wilson, for the first time on the occasion of such *post-mortem* examination as aforesaid; and this deponent further saith, that this deponent has spoken to many surgeons considerably more eminent, and of much more experience in pathological examinations than the said William James Erasmus Wilson, and that this deponent has been informed by such surgeons that the said supposed discovery made on the occasion of the examination aforesaid, was wholly erroneous and not to be relied on; and this deponent further saith, that the opinions of the surgeons aforesaid are the opinions of all the medical profession, as far as this deponent can collect, with no exception that this deponent is aware of; and this deponent further saith that this deponent is informed and verily believes, that at and after the time of making the examination as aforesaid, the said Mr. Wilson expressed to the said Mr. Day, who was present at the said examination, his entire concurrence with the said Mr. Day, and the said F. Reid, and said J. Hall, and the said John Warren, in their opinions as to the cause of death of the said F. J. White; and this deponent further saith that the said W. J. E. Wilson, as this deponent is informed and verily believes, was for a considerable time the servant of the said coroner, as sub-editor of a weekly newspaper entitled the *Lancet*, of which the said coroner is proprietor and editor, and that as this deponent is informed and verily believes the said W. J. E. Wilson, by means of the said *Lancet* and the said coronership, had incurred many heavy obligations to the said coroner, which in the belief and judgment of this deponent were calculated to bias the judgment and opinion of the said W. J. E. Wilson in giving evidence in the said inquest. And this deponent further saith, that on the 20th of August a very large public meeting was held at Exeter-hall, at which, as this deponent is informed and verily believes, several private soldiers of her Majesty's army were present, and that, as this deponent is informed and verily believes, the said coroner presided at such meeting, and addressed the persons there assembled in words to the purport and effect as is reported in the newspaper annexed, entitled the *Morning Chronicle*, dated London, that is to say—

“You hear the officers constantly exclaim that no discipline can be maintained in the army, unless the power of inflicting the lash is to be perpetuated, and unless that infliction every now and then shall take place. But when they are asked, do they not believe that if another system were adopted—a system of rewards instead of a system of punishments—(cheers)—they have not replied to it in the way of argument, but they turn upon

their heel and exclaim, ‘I don't believe in its efficiency’—(Hear). No; the truth is, that they who are in command rejoice in having that audacious power in their hands—a power of inflicting punishment on their fellow-creatures, who are equally as honourable—(cheers)—equally as just, and equally as sensitive as themselves—(Cheers).’

Again,—

“I must confess I would very much like to see it tried on the backs of those parties—(cheers and laughter)—and, further, speaking medically, it is my opinion that they richly deserve the operation—(Cheers and laughter). But I will make another appeal to the English public. Why, in fact, the authorities are unjust to the officers. Now, I wish to speak as much in favour of the officers as of the men; and my opinion is, that if the practice is beneficial to the men, it also ought to be applied to the officers—(Cheers and laughter). It is, I think, a great injustice to withhold it from them; if the practice be so good for discipline, and so effectual for the promotion of their morals, I think the young officers have great reason to complain that they have not the benefit of it—(Cheers and laughter).’

Again,—

“The 150 lashes inflicted upon that unfortunate man, whose death has been the cause of our meeting here, caused the application, or might have caused the application, of upwards of 12,000 knots of the thong to his skin; and look to the effect on a high-spirited horse of the application of a single thong of only one knot—(Hear, hear). But those who advocate flogging human beings cannot believe those human beings have the feelings of horses; if they thought they had they could not be such demons—(cheers)—as to support the infliction of such a punishment—(Cheers.) The meeting probably is not aware that, under the act of Parliament, the Commander-in-Chief has the power to grant warrants to commanding-officers to hold district courts-martial, and that regimental courts-martial may be held without a warrant from the Commander-in-Chief. Now, what was the date of the warrant under which White was punished? The 26th of April. When did he commit his offence? Not until the 5th of June—(Loud cries of ‘hear, hear’). I have not adverted to this circumstance before; but after the very unjust attacks that have been made upon me—(cheers)—I really consider I may be pardoned for adverting to the circumstance—(Cheers). Thus, then, the matter stands—the commanding-officer of a regiment has a complaint lodged against a particular man—a court-martial is held—the commanding-officer names the president who is to sit at that inquiry—the person presiding there is an individual of his nomination—(Hear, hear). Under such an arrangement—under such a mode of administering justice—(hear, hear)—I would like much to know how many have been tried, and how many have been acquitted—(Hear, hear). My own conviction is, that not one in thirty has received his acquittal—(Hear, hear). It is an awful power for any man to possess. It is true the sentence cannot be carried into effect until it has received the approbation of the commanding-officer of the district; but when does the commanding-officer disapprove of a sentence which has been passed by seven officers of the regiment, the inquiry having been instituted at the instigation of the commander of that regiment?—(Hear, hear).’

Again,—

“In conclusion, the honourable gentleman called upon the meeting to give all parties a fair hearing, and not to permit any difference of opinion to give rise to angry feelings amongst them. He then read a letter from Mr. Collett, M.P. for Athlone, enclosing five guineas for John Matthewson, 7th Hussars—(Cheers). Matthewson, he conceived, would be astonished when he received the check—(Cheers).’

“A Voice: And so will Colonel Whyte—(Cheers).’

“The Chairman: From the manner Matthewson acted on the inquest, I could not do otherwise

than believe his testimony—(cheers); but it seems to be a rule with some persons that, when rich men are examined on oath, you should believe all they say; but that, when poor men are examined on oath, you should believe nothing they say. That is a rule on which I never acted; it is one on which I never will act—(Cheers). It is one which I cordially despise; there is only one thing I despise more, and that is the defenders of such a rule—(Cheers). The chairman proceeded to say, that both Matthewson and Cooke ought to be relieved from further service in that regiment—(Hear, hear). It ought not to be forgotten, that Cooke, after giving his evidence, and before the inquiry was concluded, had been singled out from his comrades, and told that he was all but perjured—(Hear, hear). The honourable member concluded by announcing a contribution from Mr. Luke Hansard of £20, in aid of the objects of the society.”

Again,—

“The Rev. Dr. Carlisle said he wished for some further explanation relating to the fact mentioned by the chairman, of the warrant of the Commander-in-Chief being signed some months before the commission of the crime for which White was punished. He wished also to ask another question. On other inquests, when the jury had found that death had followed the infliction of wounds, he found that the coroner had issued his warrant for the apprehension of the guilty parties. Why had that not been done in the recent case?”

“The Chairman explained. The statement he had made with respect to the warrant was this—That the warrant under which White had been tried was dated on the 26th of April, while his offence had been committed in June—(Hear, hear). It was the fact. Although he had made no remark upon it before, the statement had been published in the official documents, as well as in the newspapers. Consequently, it was a general warrant which the commander held, and which the Commander-in-Chief had the power to grant—(Groans). It was the law, and upon the law let their censure fall. With respect to the second question, if there had been a verdict of wilful murder, the meeting might rely upon it that warrants would have been issued for the apprehension of the parties against whom the verdict had been returned, and that without the slightest hesitation—(Cheers). He assured the meeting that he never had, and never would, flinch from what he believed to be the honest discharge of his duty—(Cheers).’

“And this deponent further saith, that subsequently to the said inquest, and in the month of September last, as this deponent is informed and verily believes, sundry advertisements were inserted in the *Lancet* and other newspapers, for the purpose and with the view of raising pecuniary subscriptions for the benefit of the said coroner, and as a reward to the said coroner for the services which the said coroner had performed in reference to military flogging, by the manner in which he, the said coroner, had conducted the said inquest; and that this deponent is informed and believes that such advertisements calling for subscriptions for such coroner had the sanction and concurrence of the said coroner. And this deponent further saith, that on the 7th day of August last, the said coroner having his attention directed to the said second alleged libel by Craven Berkeley, Esq., a member of the Commons House of Parliament, did there and then, in the said public assembly, to wit, the Commons House of Parliament, and knowing that what he said would be reported and published in most of the public prints, falsely and maliciously slander this deponent in words to the purport and effect as subsequently published in the authorized reports of the said House of Commons, entitled ‘Hansard's Parliamentary Debates,’ and published in column 446, volume 88, of the third series of the said ‘Parliamentary Debates,’ that is to say—

“The honourable member (meaning the said Craven Berkeley, Esq.) had read something, (meaning part of the second alleged libel) from



what he called a medical work (meaning the said *Medical Times*), but that (meaning the said part of the second alleged libel) was written by a stupid lawyer (meaning the defendant), who knows as much about physic as the honourable member (meaning the said Craven Berkeley, Esq.) seemed to know, judging from the style in which he read the extract.

"And this deponent further saith, that this deponent hath been informed and verily believes that the said E. Wilson has made more than twenty-five *post-mortem* examinations under the orders of the said coroner, and that he has given medical evidence in considerably more than twenty-five inquests held by the said coroner; and this deponent further saith, that he is informed and verily believes that it is not true that other surgeons have singly and separately received as many fees from the county fund of Middlesex for medical testimony at inquests as the said Erasmus Wilson; and this deponent further saith, that he is informed and verily believes that there are two thousand medical practitioners and upwards in the said coroner's district, and that the medical or surgical practice of the said William James Erasmus Wilson is not more considerable than the average number of such surgical and medical practitioners; and this deponent further saith, that it is not usual for coroners to issue to any single surgeon or practitioner so many orders to make *post-mortem* examinations, as this deponent is informed and believes were issued by the said coroner to the said William James Erasmus Wilson, to the exclusion, as this deponent verily believes, of the usual medical attendants of the subjects of the said inquests.

"And this deponent further saith, that this deponent is informed and verily believes that on the 14th day of July last, the said coroner wrote a letter to William Brent, the constable of Heston, ordering inquiry to be made by the said William Brent at the said barracks, in which letter were the words following, that is to say—'It should be stated if the body has been opened, and by whom, and whether a surgeon has made a certificate of the cause of death'; and this deponent saith that he is informed and verily believes that the said William Brent did so proceed to the said barracks, and that the said William Brent was informed, by the said James Low Warren, of the circumstances of the said *post-mortem* examination made by the said James Low Warren, and the said John Hall, and the said Francis Reid, together with the opinions of the said James Low Warren, and the said John Hall, and the said Francis Reid, touching the cause of death of the said Frederick James White; and this deponent further saith, that the said William Brent immediately communicated to the said coroner the whole of the information he had so gained at the said barracks."

Your lordships thus find the coroner making, at a public meeting remarks, which he himself says he should not have made, but for attacks made on him; he comes forward and praises a witness, and says, in the hearing of many soldiers who were present, that Matthewson and Cooke ought to be relieved from public service in that regiment. He comes forward and enters into the circumstances out of which the inquiry had arisen, the court-martial and its sentence, reviews the inquest, calls attention to the testimony which had thus been given, and to the men who had been called before him in his judicial capacity, recommends a subscription for the purpose of procuring the discharge of one of them from service in the regiment, and produces a check in his favour which he had received for him, and which check was only granted on the ground that Matthewson had given evidence on the inquest. He adverts to attacks which he says have been made on him, and justifies himself from these attacks. He further, my lords, attacks the writer in the House of Commons, calling him by contemptuous epithets. I submit, my lords, that all this disentitles him to come here and ask of your lordships to interpose the use of the extraordinary power which resides in this court.

I request your lordships' attention to the affidavit of Dr. Reid, an assistant surgeon of the army. He says, that on the 13th of July last, Dr. Hall, then a first-class staff-surgeon of the army, and now Deputy-Inspector-General of Military Hospitals, received an order from Sir James M'Gregor, directing him to be present at the *post-mortem* examination of the body of White, who had died on the 10th of the same month; this, he says, is in accordance with the regulations of the Queen's army, and he adds, that he went with the said John Hall voluntarily, and *ex proprio motu*, and at the wish of the regimental surgeon, Dr. Warren performed a careful examination of the body in presence of Dr. Hall and Dr. Warren.

"And this deponent further saith, that in order to ascertain the state of the flogged skin, and the fasciæ and muscles immediately underneath the said skin, on the back of the said Frederick John White, he, this deponent, removed a certain portion of the said skin, and that this deponent finding the said skin perfectly healed, and the parts immediately underneath to have a perfectly healthy and sound appearance, gave the said skin to Sergeant Potter, the hospital sergeant of the said regiment, with directions that it should be carefully preserved in spirits of wine; and this deponent having, by strict and careful examination, made himself perfectly certain, as this deponent believes, as to the cause of death of the said Frederick John White, did at the conclusion of the said examination, in conjunction with the said John Hall and the said James Low Warren, sign a certificate, which contained the firm and decided opinion of this deponent, and, as this deponent believes, of the said John Hall and the said James Low Warren, as to the said cause of death, which said certificate was to the purport and effect as follows:—that is to say—

"Cavalry Barracks, Hounslow, July 13, 1846.

"Having made a careful *post-mortem* examination of private Frederick White, of the 7th Hussars, we are of opinion that he died from inflammation of the pleura and of the lining membrane of the heart; and further, we are of opinion that the cause of death was nowise connected with the corporal punishment he received on the 15th of June last.

"JOHN HALL, M.D., Staff Surgeon,  
First Class.

"JAMES LOW WARREN, M.D., Surgeon  
of 7th Hussars.

"FRANCIS REID, M.D., Staff Assistant-  
Surgeon.

"And this deponent further saith, that on or before the 20th day of July last he received a summons from Thomas Wakley, Esq., one of the coroners of Middlesex, to attend an inquest to be held on the said twentieth day of July, to give evidence touching the death of the said Frederick John White; and that this deponent so attended on the said 20th day of July, ready and prepared to give evidence touching the said death; and that this deponent is informed and verily believes that the said John Hall, and the said James Low Warren, and Horatio Grosvenor Day, surgeon, of Church-street, Isleworth, in the county of Middlesex, and Dr. M'Kinlay, the partner of the said Horatio Grosvenor Day, attended the said inquest on the said 20th day of July, and were, as this deponent is informed and verily believes, ready and able to give testimony touching the death of the said Frederick John White; but that neither this deponent nor the said John Hall, nor the said James Low Warren, nor the said Horatio Grosvenor Day, nor the said Dr. M'Kinlay, nor any of them, were called on or permitted by the said coroner to give such evidence on the said day of inquest, although, as this deponent verily believes, such evidence would have left no doubt as to the cause of death of the said Frederick John White, and would have tended to quiet the public mind, which had been considerably excited and disturbed by many false reports and statements as to the cause of death of the said Frederick John White; and this deponent saith, he was the more

anxious to give evidence on the day aforesaid, inasmuch as at the first sitting of the said inquest on the said Frederick John White, held on 15th day of July last, the said coroner, as this deponent is informed and verily believes, had erroneously affirmed publicly that the said skin, removed as aforesaid by this deponent, and left as aforesaid by this deponent in the charge of the said Sergeant Potter (having considerably shrunk in consequence of being kept in such spirits of wine), was not a fifth part of the skin so removed, adding that the said circumstance was most suspicious; and this deponent saith that the said erroneous statement of the said coroner, having been published in the public prints, gave rise to many false insinuations and charges against this deponent, which this deponent would have disproved and answered if this deponent had been allowed to give evidence on such 20th day of July, on which he was summoned as aforesaid. And this deponent further saith, that when, in obedience to the said summons, this deponent and the aforesaid John Hall presented themselves on the said twentieth day of July for admission at the door of the said inquest-room, this deponent and the said John Hall were told by Inspector Lawrence, one of the police having charge of the said door, that he, the said Inspector Lawrence, had instructions from the said coroner to exclude all medical witnesses except the aforesaid Horatio Grosvenor Day; whereupon this deponent and the said John Hall desired the inspector to inform the coroner that this deponent and Dr. John Hall were in attendance, and requested permission to be present at the said proceedings, but that this deponent and the said Dr. John Hall, on such messages as aforesaid being conveyed, received from the said coroner, as this deponent was informed and verily believes, a peremptory refusal to such reasonable and proper request by means of which refusal and exclusion this deponent and the said John Hall were, as this deponent believes, placed in a most unfair position as regards the other witnesses; and the jury were taught, as this deponent believes, to look on this deponent and the said John Hall as unworthy of confidence or credit, and not as unbiassed and honest witnesses, as in truth they were. And this deponent further saith that the said coroner, as this deponent is informed and verily believes, issued an order to have the said body exhumed and examined by the said Horatio Grosvenor Day, assisted by William James Erasmus Wilson, surgeon; that, in consequence of information thereof, the said John Hall addressed to the said coroner, as this deponent is informed and verily believes, a letter of which the following is a full and correct copy:—

"Junior United Service Club, July 20, 1846.

"Sir,—I understood from Mr. Day, at Hounslow, this afternoon, that it was your intention to send a gentleman down from town to examine the spine of the late Frederick White, of the 7th Hussars, and, as I feel anxious to be present at the operation, I should be obliged by your letting me know the time and place you have fixed on for its performance.

"I am, &c.,

"JOHN HALL, M.D., Staff Surgeon, First Class.

"To Thos. Wakley, Esq., M.P., &c. &c.,  
35, Bedford-square.

To which letter aforesaid a reply was received from George Ireland Mills, the deputy-coroner of the said coroner, to the purport and effect following:—

"35, Bedford-square, July 21, 1846.

"Sir,—Mr. Wakley being compelled to leave home the moment that your note, dated yesterday, reached his hands, begs me to acknowledge for him its receipt, and to inform you that, in consequence of what transpired in the course of yesterday, he has this morning deemed it advisable that the further examination of the body of Frederick John White should be made in the absence of the medical gentlemen who instituted the autopsy of certain parts of the corpse in the two former instances, otherwise he would, with the utmost wil-



lingness, have forwarded to you the information that you desire to receive.

"GEORGE IRELAND MILLS,  
Deputy-Coroner of Middlesex.

"To Staff Surgeon John Hall, &c. &c.,  
Junior United Service Club."

And the said John Hall, on receiving such notice, as this deponent is informed and verily believes, sent a letter, of which the following is a true and correct copy, to the said coroner:—

"Junior United Service Club, July 21, 1846.

"Sir,—I am honoured with a note from Mr. Mills, the deputy-coroner, in answer to mine of last night, to you, in which he states that you deem it advisable that the further examination of the body of Frederick John White should be made in the absence of the medical gentlemen who instituted the autopsy of certain parts of the corpse on two former occasions. On what grounds you have come to this decision I cannot say, but, as I have received an official order from my superiors to be present at the examination, which I am bound to obey, I trust you will reconsider it, and give me the information I request. I think, on reflection, you will see that I am asking for nothing but what in common justice I am entitled to, considering the extraordinary efforts that have been made by some of the public prints to create a prejudice and clamour in this particular case.

"I am, &c.,

"JOHN HALL, M.D., Staff Surgeon, 1st Class.

"To Thomas Wakley, Esq., M.P., &c. &c.,  
Coroner for Middlesex."

To which reply of the said John Hall, the said John Hall received an answer, as this deponent is informed and verily believes, from the said coroner, again peremptorily refusing the said request; and this deponent saith, that he and the said John Hall, having further received an order from the said Sir James M'Gregor, Bart., of which the following is a copy: that is to say,—

"Army Medical Department, July 21, 1846.

"Gentlemen,—It being expected that a further *post-mortem* examination will take place of the recent case in the 7th Hussars, at Hounslow, I have to request that you will be present on the occasion in your professional character as medical officers of the army.

"I have the honour to be, &c. &c.,

(Signed) "J. M'GREGOR,

Director-General.

"To Dr. Hall, Staff Surgeon, First Class, and  
Dr. F. Reid, Staff Assist. Surgeon."

presented themselves at the churchyard of Heston, in the county of Middlesex, and showed the order of the said Sir James M'Gregor to one of several constables, who were on duty at the same churchyard, and desired admission to witness the examination of the body, which was there being proceeded with; that such admission was peremptorily refused, and that orders, of which the following are correct and full copies, were shown to this deponent, and of which full and correct copies thereof were taken by this deponent—that is to say, viz.:—

"35, Bedford-square, July 21, 1846.

"Mr. BRENT,—Take the enclosed order to the persons addressed therein, and inform the Reverend Mr. Trimmer and churchwardens, that Mr. Wilson, surgeon, will be at the churchyard at eleven o'clock exactly, on Wednesday morning, July 22nd, to make his inspection of the body; and that the corpse must be removed from the coffin, and open for his examination by that hour.

"No person whatever, but Mr. Day, who Mr. Wilson will bring with him, must be present with Mr. Wilson when he examines the body. Consequently, no notice whatever is to be given to any regimental or other medical officer, as to the day and hour of the inspection. Mr. Wilson has orders to exclude every person but Mr. Day, unless it be some person to assist with a bucket, water, sponge, &c.

(Signed) "Geo. J. MILLS,

Deputy-coroner.

"To the Parish Constable of Heston."

"Extract from Mr. Wilson's instructions from the coroner:—

"The coroner gives directions that no medical gentleman, but you and Mr. Day, shall attend your examination.

"This is peremptory, and your authority for excluding all others."

And this deponent verily believes that such exclusion of this deponent and the said John Hall made the medical evidence subsequently submitted to the said jury, partial, equivocal, and surrounded with doubt and fallacy, and was the more likely to prejudice the testimony and repute of this deponent and the said John Hall, before the said jury and with the public, inasmuch as the said coroner had declared at the said inquest, as this deponent is informed and verily believes, and as the public prints had widely and generally reported, that the military authorities might appoint a medical gentleman to be present at a *post-mortem* examination, to be made on the said Frederick John White, subsequently to the examination made by this deponent, and the said James Low Warren, and the said John Hall, to which medical officer so attending such subsequent examination, by order of the military authorities, every facility would be given by the said coroner. And this deponent further saith, that though he was in no way whatever answerable for any of the circumstances causing, or alleged as causing, the death of the said Frederick John White, and had no wish or intention to conceal or misstate any fact or opinion within his knowledge likely to elucidate such cause of death, this deponent was nevertheless treated by the said coroner at the sittings of the said inquest, held on the 27th day of July last, and the said 3rd day of August last, with rudeness and contumely; was directly, and before the court and jury, addressed in language by the said coroner calculated and, as this deponent believes, intended to prevent the full statement by this deponent of his professional and deliberate opinions on the cause of death of the said Frederick John White, and was compelled by the said coroner to put certain inquiries which this deponent wished to be submitted to the said William James Erasmus Wilson, not through the said coroner or his deputy, as this deponent requested, wished, and expected, but through the attorney of the officers of the said 7th Regiment of Hussars; by which proceedings, as well as by many other proceedings of the said coroner, the jury and the public were likely to infer, and were, as this deponent verily believes, desired by the said coroner to infer, that this deponent was retained on behalf of the said officers, and not an independent witness, attending by the summons of the said coroner. And this deponent further saith, that he hath read certain alleged libels on the said coroner, published in the *Medical Times* of the 2nd day of August last; and this deponent verily believes that the term, 'farical impersonation of judgeship,' is true as applied to the conduct of the said coroner during the said inquest, and that the charge of 'bullying witnesses' made in the said alleged libels is true, both as regards this deponent and as regards the said John Hall and the said Francis Reid, other medical witnesses examined at the inquest, except the said William James Erasmus Wilson; and that this deponent further saith, that this deponent firmly believes that there was a strong bias shown in the conduct of the said coroner against certain officers of the said 7th Regiment of Hussars, who were, or were supposed to be, connected with a certain military flogging received, as this deponent is informed and believes, by the said Frederick John White, twenty-six days before the death of the said Frederick John White; and this deponent verily believes that the said coroner did, in the proceedings of the said inquest, show an undue bias and anxiety to criminate the said parties, and to damage them as well as this deponent and the said John Hall in the estimation of the said jury and the public generally; and that this deponent verily believes and affirms, that during the sittings of the said in-

quest, held on the said 27th day of July last, and the said 3rd day of August last, the said inquest-room was more like a playhouse than a court of judicial investigation; that there were frequent and repeated exhibitions of laughter and indecorum in the said court, and that such exhibitions arose, as this deponent verily believes, mainly, if not entirely, from the facetious manner and droll gestures, as well as from the free and frequent jests and levities, of the said coroner."

Then, my lords, we have the affidavit of Mr. Day, of Isleworth, the surgeon appointed by the jury. He states that, on the 15th of July, he received an order from the coroner to make a *post-mortem* examination of the body of White, and was instructed by the coroner to pay strict attention to the skin of the back, a part of which was said to be missing; that, in conjunction with Dr. M'Kinlay, his partner, he made such examination, paying special attention to the said skin, and the parts immediately beneath it, and by such examination he arrived at decided conclusion as to the cause of death; and that such conclusion was in perfect agreement with that of Drs. Warren, Reid, and Hall. He further says, "that he was present at the inquest, on the 20th of July, and knew of the exclusion of Drs. Warren, Hall, and Reid, from the court, and believes that such exclusion was inexpedient and calculated to injure the completeness of the medical evidence as to the cause of death." He further says, he has read the affidavit of Thomas Wakley, sworn at Ipswich, in this case, and "that it was upon a direct interrogation from the said Thomas Wakley, on the 20th of July, that he, this deponent, informed the said coroner that he had not examined the spine of the body; and this deponent further says, that he did not, as in the affidavit of Thomas Wakley is alleged, say that he had not examined the back of Frederick John White; and further, deponent says, that in reply to an interrogation from the coroner, that he told the said coroner that he considered the examination of the spine wholly unnecessary and useless, and that the body was in such a state of decomposition that the state of the spine could furnish no anatomical guidance to the cause of death. And this deponent says further, that the insinuation in the affidavit of Thomas Wakley, that the jury had no confidence in the deponent on account of his alleged connection with certain of the military concerned, and with the neighbourhood, is, as he believes, unfounded and erroneous. And further, this deponent saith, that on the 16th of July, he was desired by the coroner to make a further examination of the body, and was informed by the coroner that a surgeon from London would be sent down to assist him in such examination; and further, this deponent says that he was present at such further examination and assisted the said surgeon, J. E. Wilson, and that this deponent was aware of the exclusion of Drs. Hall and Reid, and that such exclusion, in his opinion, was inexpedient and calculated to prevent the said coroner and jury from obtaining full and satisfactory evidence touching the cause of death, and that, at the conclusion of such further examination, the said J. E. Wilson expressed a concurrence of opinion with this deponent as to the cause of death, and that this deponent, remembering such circumstance, was exceedingly surprised at the sitting of the jury, July 27, to hear the opinion then expressed by the said W. J. E. Wilson as to the cause of death, and that when examined by the said coroner on the 27th of July, he was examined touching the results of the first *post-mortem* examination, and not as to the result of the second, until subsequently called upon by Mr. Clarke, the attorney for the officers of the regiment, to give such evidence; and this deponent saith further, that Drs. Hall, Warren, and Reid, were not treated with such courtesy as in his opinion was due to medical witnesses in a court of justice."

This, my lords, is the affidavit of the surgeon appointed by the jury, and who ought to have been examined on the 20th July; but the coroner looked out for another, and, when the jury sat again,



never examined Mr. Day about the last examination made with Mr. Wilson, but about the first. Mr. Day also points out Mr. Wilson's concurrence with him and the military medical officers at the close of the examination. He is, my lords, an impartial man, residing at Isleworth; he was the nominee of the jury, and I see no reason why we should not receive his statement as that of an unbiassed witness. (a)

Having read the affidavits, I will, with your lordships' permission, give an account of the matter very shortly. The private soldier, F. J. White, dies in the hospital, at Hounslow; two medical officers are sent down, according to the regulations of the army in such cases, and, in conjunction with the regimental surgeon who had attended the deceased in his illness, came to the conclusion, that the death was not connected as its consequence, or, indeed, had anything at all to do with it. The coroner is put in motion by some private individuals, and he says that he was unaware of the certificate which had been given by those officers who had examined the body, and that he gave directions to the constable Brent to see if there had been any *post-mortem* examination made of the body, and what had been the result; and he says, that the opinion of the officers who made the *post-mortem* was unknown to him to July 27. Now, my lords, on the 20th of July, the Honourable Fox Maule, in the House of Commons, had publicly stated that a certificate had been sent up by the medical officers alluded to, and that their opinion was, unanimously, that the punishment had nothing at all to do with the death; this statement was in all the newspapers, and yet the coroner says he did not know that opinion. Then, my lords, look at the proceedings: on the first day of the meeting of the jury, instead of proceeding according to the provisions of the act, and examining the surgeon who had attended the deceased up to the time of death, and then, in case of dissatisfaction on the part of the jury, appointing another, the first step he takes, on the first meeting of the jury, is in direct contradiction of the act of Parliament regulating such inquiries, and he proceeds to suggest that they should nominate some one to conduct such *post-mortem* examination—some one else; which course, I submit to your lordships, was calculated to produce in the outset the impression on the minds of the jury, and all present, that the military medical officers—one of whom had attended deceased in his dying moments, and the other two had with the first conducted a *post-mortem* examination—were not to be relied on; and so, my lords, we find the jury nominating a person, Mr. Day, whom they knew, and he proceeds at once to the examination. The inquest is adjourned to the 20th of July, without hearing evidence on that day; the medical witnesses, Drs. Reid, Hall, and Warren, were present at the door ready to give evidence, and asked to be admitted, but he issues orders for the military medical officers to be excluded even from being present. This was a public court, from which no one of your lordships would have excluded witnesses; nor is any cause assigned for such exclusion. Was it just to exclude these gentlemen, who knew the facts of the case, lest their testimony should alter the impression of the court? It was not only indiscreet, but unjust in the highest degree, to stamp these men, of the highest respectability, with odium, lest what should be said by them should produce effect on the convictions of the jury. They stand at the door, they pray admission—it is refused; Mr. Day, who was nominated by the jury, cannot well be refused; but instead of proceeding with medical evidence, the coroner begins asking subtle questions of Mr. Day, and ascertains there is something to which he can take exception. "Have you," he says, "Mr. Day, examined the

spine?" "No," said Mr. Day; "you said the muscles; the spine is not essential; it is of no use examining the spine, the body is in such a state of decomposition that it is impossible an examination of the spine can furnish us with the cause of death; the weather being hotter than has been known for many years, so great has been the decomposition of the body that the spine cannot now be examined with any effect." Upon this, the coroner, seeing that the evidence all looks one way, instead of examining those witnesses who were there, and whom he should have examined, or in proceeding according to the act, he goes to one who, if not his own pupil, had been sub-editor of his paper, the *Lancet*, and gets him down to make a third examination. Of course, from this he cannot exclude Mr. Day; but that Mr. Day should not stand in much competition with Mr. Wilson, he asks the latter, at the inquest (just as we here, my lords, would examine a witness whose reputation we would wish to set up), the long list of his titles,—the names of his books; and Mr. Wilson accordingly favours the court with a list of the titles of his books (at first he forgot their names), which he is happy to say are out of print. The medical gentlemen who attended the deceased in illness, and made the first *post-mortem* examination, were excluded from this third examination of the body; two of them had orders to be present, and made application for admission, but it was refused, and, besides Mr. Wilson, only Mr. Day was present. In vain the request of Dr. Hall was urged. "It is of no use," says the coroner, "I cannot exclude Mr. Day, but I will you." Why is this, my lords? Why should not these officers be present? On the ground that they were so interested in the inquiry, they should have been admitted not only on the inquest, but to the examination itself. This exclusion deprived them of all opportunity of correcting Mr. Wilson's statements of facts; but is the interest these men feel in the inquiry a reason why gentlemen bearing her Majesty's commission should be excluded from a judicial inquiry? My lords, I say not only was this exclusion inexpedient, and this preference of witnesses improper, but I may go one step further, and ask, not only whether such partial evidence was not the effect produced, but whether that was not the intention? It seems to me in such utter violation of what a judicial officer in his senses should do, that I cannot help saying, with great submission to your lordships, there must have been some other motive for such conduct.

Another fact, which strikes me very forcibly, is, that after the first examination of the body by Mr. Day and Mr. Wilson, they perfectly agreed in opinion as to the cause of death, and that so far from, at that time, making any new discovery, Mr. Wilson stated his agreement with the military officers as to the cause of death. I will not trouble your lordships with his evidence, but we know what Dr. Warren, Dr. Hall, and Dr. Reid say as to this fact, that the flogging could not be the cause of death. It is not always we can tell the immediate cause of death; but here disease of the heart and of the pleura were of themselves sufficient to cause it, while the superficialities of the back was healed, and the muscles and the other parts beneath were in that state in which the medical witnesses say they were. Again, we may suppose that, if the testimony of these witnesses had not been anticipated, the jury would have come to a different conclusion to that to which they arrived. Here was Dr. Warren who attended at the death, and he could have given evidence of vital importance; but, says the coroner, "I shall have to charge the jury presently about the cause of death," and he does not have him sworn. Dr. Reid says, I wished to put some questions to Mr. Wilson, of great importance as to the cause of death; but the coroner refuses to put them, and leaves him to have them put through the attorney of the officers, thus connecting him with them in the minds of the jury. Instead of examining the medical

witnesses on the 20th of July, as he might have done, he postponed it till the 27th, keeping alive the excitement and ferment of the public mind, adjourning the court, although the witnesses were present and ready to give evidence. Why is this, but to get down a surgeon who is of his own opinion, and one who was open to views like himself, who should examine the body in the absence of the officers, and, by representing the medical officers as persons having interest in the trial, so do away with the effect of their evidence, and so sweep the floor of all such evidence as did not agree with his views.

He also, my lords, when all this conduct had been remarked on, goes to a public meeting, within a few days of the conclusion of the inquiry, and makes an inflammatory speech, attacks whole classes, and defends himself against the attacks of others; bears testimony to the good conduct and deserts of some of the witnesses; hands in a cheque for one of the witnesses, and says there, that his discharge from service in the regiment ought to be procured; remarks on the court-martial, on the conduct of the commanding-officer of the district, and speaks degradingly of the officers of the army, and says many of them are indifferent to human life, and deserving of punishment themselves. All this, I submit, dis-entitles him to your lordships' interposition; he has, I contend, shown strong bias in the manner of conducting this inquiry; he has exposed several other persons to great hardship and injustice, whom he should have rather protected; he has made some remarks on individuals in public, in connection with the subject of this inquest and the alleged libel. When, too, upon one public occasion, his attention was called to the said alleged libel, he alluded to its author in expressions of contempt. It is not a question whether the allegations in the libel may or may not have gone too far in this instance, but whether, under all the circumstances, he has conducted himself in such a way as to deserve the extraordinary interference of this court. A public officer is not idly to have motives imputed to him, but, at the same time, he is subject to public observation, and I think no one can say, looking at all the circumstances, and his manner of conducting the inquest, that Mr. Wakley's conduct is not fairly open to inquiry and discussion. When a public officer commits indiscretions in the exercise of his functions, no one, I hope, will say that his conduct is not to be canvassed by the press; and, though I do not say that all the motives imputed to Mr. Wakley can be sustained, I think still that your lordships will see that he has stepped out of his duty. It seems strange that one who has wielded the *Lancet* for so many years so unscrupulously should himself be so thin-skinned as to be offended when his own behaviour is the subject of remark. I think that, when your lordships shall have looked at his conduct from beginning to end, and the way in which he exercised his judicial functions, your lordships will be of opinion that this is not a case for your lordships' interposition.

Mr. Ballantine rose and said—I shall, my lords, endeavour to avoid going over the ground which my learned friend has so ably trodden, and confine my remarks to the remaining points. I shall endeavour to show your lordships that there are certain rules laid down, from which it is not the custom of this court to depart when called on to exercise its extraordinary power in these cases, and I say that a person coming into this court for such a purpose must not have taken the same into his own hands, or sought irregular remedies. He must also come into court with clean hands, and tell his tale truly, and not keep back any part; but, if this is not done, your lordships have considered it not proper to exercise such power. I will take the liberty to refer your lordships to the judgment of Lord Denman in "*The Queen v. the Nottingham Journal*," reported in the 9th Dowling Reports. In that case it appeared that the person who applied for a criminal information had written a letter to an-

(a) There was also another affidavit of Dr. Warren, verifying the statements of Dr. Reid, and swearing further that Dr. Warren and the officers of the regiment gave the coroner every facility and aid in properly carrying on the inquest.



other journal on the subject, and the court held that that was a ground for the refusal of the rule. The applicant in that case, my lords, has done more than is necessary to deny the charge, and, instead of leaving himself in the hands of the court, made attacks upon other parties, and has thus dis-entitled himself to any protection from your lordships under that rule. Mr. Cockburn has referred to a speech made by the applicant, in which he endeavoured to cast contempt on the writer of the articles complained of, and your lordships know that there is no way so effective of doing this as by showing that the person spoken of knows nothing of the subject of which he speaks or writes; and this, I submit, is a ground on which he has placed himself out of the pale of your lordships' accustomed exercise of interposition.

The second part to which I beg to call your lordships' attention is, the way in which he has sworn his affidavit: this he has done with much ingenuity, and in a manner intended to leave in great uncertainty important facts connected with the subject. I beg your lordships to notice that he was charged with acting rather with a political view than as a judge in the discharge of his duty; and it is suggested in the libel that he was so connected with Mr. Wilson as to render his preference of Mr. Wilson suspected. Mark the way in which he met this part of the allegation, for it has much to do with the fairness of his statement, and, therefore, with his right to your lordships' interference. He refers to the number of times at which he has employed Mr. Wilson to make *post-mortem* examinations, and he states in a gross sum what he might have paid, not, my lords, for *post-mortem* fees, but for *post-mortem* fees and evidence; but your lordships will remember that there is a schedule, in which a scale of fees is given, and that the sum was fixed at one guinea to a medical man for giving evidence, and two guineas for making a *post-mortem* examination. But it does not follow that there should always be a *post-mortem* examination, and a case of evidence; the medical man examined must always be the one who happened to be acquainted with the case; the payment of the fees would then not be at the option of the coroner, but the person receiving the same would be that one who happened to know the case, which was perfectly accidental. I submit to your lordships that this combination of different matters is calculated to give a false impression as to the way in which he had disposed of the patronage given him by his office; it is only when a *post-mortem* examination is made that the disposal of the fee was in the coroners; and, as it had been remarked that Mr. E. Wilson was so often in requisition, the profession naturally looked on it as unfair, and this will explain the phrase, *ambulatory post-mortem man*. It is not intended to say that there was any corrupt division of the profits. Mr. Wakley has sworn that he has paid £1,400 for fees, and then says that Mr. Wilson had not had from him twenty-five *post-mortem* fees. Your lordships will, perhaps, see a hidden meaning in this. Probably a large proportion of this £1,400 consisted of fees for giving evidence, over which the coroner had no control, and all that has ever been paid by Mr. Wakley for *post-mortem* fees may, for anything which has yet appeared, have fallen to the lot of Mr. Wilson, and may all have been paid within the last six months. I think this is a most jesuitical way of stating the matter in Mr. Wakley's affidavit.

The Attorney-General: My learned friend is now in effect reiterating the charge which has been disclaimed.

Lord Denman: I should not have thought this quite the thing, I confess.

Mr. Ballantine: My lord, I am not repeating what has been disclaimed, but only commenting on Mr. Wakley's answer, and comparing it with the facts, to show that he has not made an open statement on the matter. Then, my lords, there are other points to which I must call your lordships' attention; you will perceive that five medical men were of opinion that White's death was not in con-

sequence of the punishment which he received, but that on the opinion of one surgeon the verdict is returned. I submit, you cannot grant this rule unless the applicant comes into court entirely free from blame; and I submit to your lordships, that it is not whether the libel is wholly proved or not, but whether the conduct of the coroner entitles him to the rule. I point your lordships to the meeting at Exeter Hall, and the speech which the coroner made there, and ask you whether, in the opinion of this court, he has acted altogether as he should have done, to be in a position to ask for this rule? It is well known to your lordships, that in this country so much importance is attached to the deliberate opinion of this court, on an application for criminal information, that persons coming here for protection, are frequently so satisfied with the impression which that judgment carries with it, as to carry the case no further. Your opinion pronounced here has the weight of a judgment after a full trial; and there is no guarantee, or, indeed, likelihood, that Mr. Wakley, if you grant him this rule, will ever go to a jury, when he would himself have to appear in the witness-box. And, feeling the vast importance of the experienced judgment of your lordships, at this stage of the proceedings the defendants have been anxious that your lordships should decide with a full knowledge of the facts, and have filed for your lordships' assistance a full report of the whole inquest. Your lordships will not sanction that a judge shall say, that such and such witnesses will not satisfy him, and to appoint another person to examine the body, and then another, instead of receiving the testimony provided by them. I have to complain of the conduct of the coroner with respect to the statement he made, that a portion of the skin had been removed, which statement was positively made before evidence was received. On the first day of the inquest, and when he comes to sum up, he says that he was mistaken.

Lord Denman: Do you complain of that, Mr. Ballantine?

Mr. Ballantine: Not at all, my lord; but, during the interval between making such statement and its retraction, it had done much harm. He states at the conclusion that there was not the slightest ground for such a supposition; this statement was calculated to produce a strong impression, both on the mind of the public and the jury, unfavourable to the character of the medical officers who had made the first *post-mortem* examination. Then, at the meeting of the inquest, held after Mr. Day's first examination of the body, Mr. Wakley swears that he did not hear Mr. Day's evidence, in consequence of a casual observation which fell from Mr. Day, that he had not examined the spine; whereas Mr. Day says that it was the muscles of the back which he was particularly to examine, and that Mr. Wilson did not say that he had drawn any conclusions from the state of the spine as to the cause of death. But Mr. Wakley says that Mr. Day had not examined the muscles of the back, and Mr. Day swears most distinctly that he did examine the muscles of the back; and further, that not one word was said at the first meeting, after Mr. Day had examined the body, by Mr. Day, concerning the muscles of the back, except in answer to divers inquiries made by the coroner, which questions he asked before swearing him to give evidence. If your lordships look to the summing up at this inquest, you will find that, although it appears to be very calm, it is yet calculated to conduct the minds of the jury to a conclusion favourable to his own views. He says, "Gentlemen, this case has occupied so long a time, and so many irrelevant matters have been introduced, that I must ask you to confine yourselves solely to the evidence before you. This is a case in which it is important that you should divest your minds of all foreign matter." He then says, "This case will be a lesson to those who wish to evade the justice of the law." My lords, in this case there has been no attempt to evade the hands of justice. He tells them that, if there was nothing

wrong, there was nothing to fear; that when they first saw the body, the skin was much smaller, and that that had given rise to a supposition which there was no reason whatever to believe correct. This explanation, my lords, was not given at the time when the libel was published, and the impression made by it was in the writer's mind. Mr. Wakley tells the jury that the examination made by the staff-surgeons was partial, and yet he swears he did not know at the time what were the opinions of these staff-surgeons, although he says that the examinations are partial, and speaks of some one completing the examination. I will not trouble your lordships further with any minute examinations of the proceedings. At a time when a great public feeling was raised no doubt the mind of the writer may have been excited, as was that of any man who took any interest in public matters. His journal was naturally the point to which those injured by the inquest made their appeal, and whence they expected support. I would be the last man, my lords, to justify the use of intemperate advocacy; but I do not find that anything here is stronger than the speech of the coroner at the public meeting at which he presided. I am sure that Mr. Healey would deeply regret if he had used any intemperate language, but he felt that such were the irregularities adverted to in the alleged libel as to call for decided censure; and I think, when your lordships consider the conduct of the coroner respecting the inquest, and, subsequently, in taking the remedy in his own hands, you will be of opinion that he is not entitled to the protection he now seeks.

[We give the report of the other side *verbatim* from the *Morning Herald* of the 1st inst., which appears to have been the only morning paper which gave a full report of these proceedings. While saving ourselves trouble, we thus give to our readers a pledge of impartiality].—

"The Attorney-General (with whom was Mr. Bramwell) appeared on behalf of Mr. Wakley, in support of the rule.

"Lord Denman said it was admitted that the inquest was properly called; it was admitted that the summing up of the coroner was temperate, moderate, and proper; he, therefore, thought the court might save the Attorney-General much trouble by stating that the question would be as to the conduct of the coroner with regard to the medical witnesses.

"The Attorney-General said that this libel had appeared two days before the coroner was going to sum up; and, therefore, the defendants could not, when they published it, have been aware of the circumstances which they had to-day put before the court as matter of justification. Mr. Wakley's continued exercise of his functions depended upon the result of this rule. The coroner's conduct on this occasion was beyond reproach. He had commenced his inquiry by calling evidence as to the state of the man's health previously to and at the time of the punishment. He then inquired as to his state from that time to his death. As to the exclusion of the medical men from the inquest, the fact was that all the witnesses were excluded from the room, and gave their evidence apart from the others. It had been laid down by the coroner as a general rule, and not with a view of excluding these medical men in particular from the room. The jury had decided upon having further medical evidence, and the coroner had accidentally met Mr. Erasmus Wilson, and had asked him to go down. As regarded the refusal to allow the military medical man to be present when the body was exhumed that had not been charged in the libel, and, therefore, the affidavits did not furnish that explanation which otherwise, no doubt, could have been afforded. As to Mr. Wakley, as a member of Parliament, attending at Exeter Hall, he himself, from his position, could give no opinion, but he thought there was scarcely any one in that court who would wish Mr. Wakley to retract any observation he had made there. He submitted that, in a case like the present, unless the court interposed with its extraordinary jurisdiction on behalf of a public



officer, the practice of the court must be considered as abandoned and useless. His learned friend, Mr. Cockburn, had concluded his speech by an expression of surprise that Mr. Wakley was so thin-skinned. He was not thin-skinned, but he was sensible of the virtue of reputation, and felt that, unless he legally repelled such assaults as these, his utility as a public officer would be at an end.

"Lord Denman: Why were the medical officers excluded?"

"The Attorney-General: They were not alone excluded. All others, except Mr. Day, were excluded."

"Mr. Ballantine: Yes, my lord, the correspondence between the medical officers and Mr. Wakley shows that they were expressly excluded from the *post-mortem* examination by the coroner's order."

"The Attorney-General: The coroner ordered all witnesses to leave the court during the proceedings, and he had a right to do so."

"Mr. Ballantine: All the witnesses were not excluded; only the medical officers."

"The Attorney-General: Permission was given to the adjutant to be present, to instruct Mr. Clarke, the attorney, who appeared in court to watch the proceedings on behalf of the officers. The jurors objected to the presence of the officers, because that would have intimidated the private soldiers who had to appear as witnesses. A juror had remarked, that if he were an officer he would not stay in court during such examinations. This led to the order; but the adjutant remained, as I have said, to assist Mr. Clarke. The charges against Mr. Wakley are, that he got up the proceedings for the sake of a base popularity and for profit, by dividing the fees with Mr. Wilson."

"Mr. Justice Wightman: I don't think you need urge the latter point; but you have addressed no observations to us as to the exclusion of the medical gentlemen from the *post-mortem* examination."

"The Attorney-General: That was done at the request of the jury."

"Mr. Ballantine: Your lordships will find that it came from Mr. Wakley. The correspondence, as I have said, shows it. One of the letters is even from Mr. Wilson."

"The Attorney-General: I don't say that it was wise to exclude those gentlemen; but we must look at the circumstances. There is, at any rate, no ground for most of the imputations; no ground for saying that Mr. Wilson made his evidence according to order; for saying that Mr. Wakley would be disappointed if he did not get a verdict charging some one with wilful murder. I think, my lords, the manner in which the other side have altogether acted shows the great importance of this matter to Mr. Wakley, and how desirable it is that he should receive the protection of your lordships."

"Mr. Bramwell followed in support of the rule."

"Lord Denman said the court could see no good reason for excluding any one who could have given information to the coroner's jury. What was it that occurred on the 21st of July that should have led Mr. Wakley to shut out the medical officers, or, indeed, any other medical men who knew anything about the case?"

"The Attorney-General: The medical officers knew of the paralysis two days before the man died; that is shown by the evidence. The jury wished to have the body examined by a London surgeon."

"Mr. Cockburn: I would just call your lordship's attention to the fact that at this very time, the 21st, when a 'London' surgeon was called for, the medical officers, men of great experience, eminent men, men of high character and attainments, were at the door, and asking to be examined, and were refused."

"Mr. Bramwell said that no improper motive led to the exclusion. Perhaps it was indiscreet, but their lordships would not, he thought, deem it a justification of a libel which charged every kind of bad motive and most improper conduct throughout."

"Lord Denman: The court will take time to consider. Let us have the affidavits."

"These proceedings occupied the court from ten to three. Mr. Cockburn's speech was a brilliant one; that of the Attorney-General was much shorter, but effective."

#### UNANIMOUS OPINION OF THE COURT.

Lord Denman read the written judgment of the court (unanimous) in this case on Wednesday morning. He said that, instead of examining minutely the voluminous affidavits that were laid before them, they had come to the conclusion that they might dispose of the case by considering the facts as they had been adverted to by the learned counsel in their arguments for and against the rule. Mr. Wakley, who was one of the coroners of Middlesex, applied for leave to file a criminal information against the proprietor and publisher of a London newspaper, for certain libellous attacks that had been made upon him, which were printed and circulated in a periodical called the *Medical Times*, at a time when he was conducting a most important and interesting inquiry. The charges which they made against him were of a very grave character. That this was a most serious offence, it could not be for a moment doubted. The attack was severe and violent, and, being circulated in such a journal as the *Medical Times* while the inquiry was being conducted, naturally produced a strong sensation and general excitement. The question, however, for their lordships' consideration was, whether the coroner had or had not, by some proceedings of his own, precluded himself from seeking the interposition of the court in his favour. Amongst the judicial officers of England the office of coroner was one of the most important, and one that most peculiarly required protection from libellous attacks. His duties were of the most serious character—as important as those of the superior judges, as difficult in some respects to discharge, and, perhaps, even often more anxious. His mind was constantly on the watch for new disclosures, and, in the uncertain state of things with which it was his duty to deal, suspicion was very likely naturally to arise in his mind, while at the same time the jury were painfully affected by the presence of the dead, and with their suspicions of the living. Under such circumstances, the words of the coroner were scanned both with jealousy and distrust, while he himself was left without the ordinary means of preserving order; holding his tribunal at unaccustomed places, and surrounded by none of that imposing solemnity which characterized the courts of justice. In this particular case the coroner was entitled to commendation for directing an inquiry into the circumstances attending the death, and would have been deserving of censure if he had not done so. The learned counsel confined himself to the expressions used in the libel, and admitted, as they were bound to do that they had no complaint to make against the charge to the jury, which they allowed to have been fair and temperate, and no complaint was made or attempted to be proved against the witnesses; and his language, in referring to the evidence, went only to affect the conduct of the coroner, whose proceedings were then under consideration. Still, however, as the charges in the libels were persisted in, the court had to consider the nature of the inquiry, and the charges originating from it. That inquiry was one instituted into the cause of the death of Frederick J. White, a private soldier in the 7th Hussars, a healthy young man, who, for a military offence, had been subjected to a flogging, and who dying shortly afterward, gave rise to an opinion that he had died from the effects of that flogging—an opinion which could hardly fail to create the belief that there had been some misconduct in the commanding-officers of the regiment. There might, therefore, be a charge of murder against them if the sentence under which the flogging had been inflicted was unwarranted, or, if warranted, and accompanied by wanton or cruel prolongation of suffering, it might involve a charge of manslaughter not only against the officers who directed the punishment, but against the medical officers who were present and witnessed it. Some of these medical officers were necessarily present for fear of any danger arising to threaten the life of the party flogged, and the inquiry was, therefore,

of considerable importance to them. It was further of importance to them, because, as the soldier had been in the hospital after the flogging, it was not wholly improbable that he might have fallen a victim to unskilful medical treatment. Upon his death it appeared that an examination of the body was entered into by the medical men connected with the regiment, and they had reported their opinion to be that the punishment had nothing whatever to do with the death. Mr. Wakley declared that at the time he summoned the inquest he did not know the opinions which had been expressed by these medical men. But he did not call for their opinions as expressed in their official report, but ordered at once, at the instance of a respectable clergyman in the neighbourhood, that a jury should be summoned; and he nominated a surgeon, Mr. Day, to examine into the cause of the death. His right to nominate a surgeon for such a purpose depended on the 6 and 7 Wm. IV., c. 89. But, in order to exercise the power of such nomination, it was a condition precedent that the death should be unaccounted for by a medical person present at the time of the death, or in attendance previously. It was also necessary that the majority of the jury should have assented to the appointment of the individual. Mr. Day, the surgeon thus nominated, reported that the cause of death was wholly unconnected with the flogging. The coroner was not satisfied with this report, and he directed an exhumation of the body, and a further examination of it, and he stated that the jurors wished him to name another man to make it. He nominated a Mr. Wilson, an intimate friend and former associate of his own, for this purpose. The court could not hesitate to condemn this nomination. The coroner having placed himself in opposition to the other medical men, in the view which he took of the cause of the death, ought to have been peculiarly careful to nominate a medical man of known skill and science, and altogether free from any bias or supposed bias of intimacy and similarity of opinion with himself. From this second examination the coroner directed the exclusion of the other medical men, and the surgeon of the regiment. For this course of proceeding Mr. Wakley had assigned no reason whatever in his affidavits, but he stated that the jurors recommended this mode of proceeding. Their lordships thought it was his duty to resist such a recommendation. Mr. Day, after assisting Mr. Wilson in his examination, persisted in his first opinion, and said that he had understood that Mr. Wilson agreed with him in that opinion, and that he was much surprised to hear Mr. Wilson state before the jury that the death resulted from the flogging. The learned Attorney-General had endeavoured to explain this circumstance, but it was quite clear that Mr. Wilson differed from the other witnesses in supporting the verdict, which ascribed the death to the punishment. There had been a remark made on the coroner's refusal to put Dr. Warren upon his oath during the inquest, that it had been said that such a proceeding gave rise to a prejudicial opinion that he might afterwards be called before it as a culprit. The court concurred in that remark. The verdict attributed the death to the effect of the punishment inflicted, and added a condemnation of the law allowing such punishment, and an invocation to the people to petition for its alteration. It appeared to the court to be quite foreign to the duties and functions of the jury, to introduce such topics, and the doing so was scarcely compatible with the sober discharge of their duties. The coroner ought to have discouraged the introduction of such topics. It was incumbent upon him to suppress the expression of opinion on such an occasion. The court also found by the affidavits, that Mr. Wakley had taken the chair at a public meeting, called to promote the object of abolishing flogging in the army and navy, and had introduced caustic remarks on the various circumstances of the case which had been before him at this inquest, repelling censures which he believed to have been cast upon himself, and alluding to the very libels of which he now complained. It also appeared, that in his place in the House of Commons, Mr. Wakley had spoken contemptuously of the periodical that had printed this libel against



him. Although the court could not properly allude to the debates that took place within the Houses of Parliament, yet it was impossible for their lordships not to see that these debates found their way by some means or another into the public newspapers, through which they obtained general circulation. The court were of opinion that there was here some ground for the argument of discharging the rule, inasmuch as the complainant, by such a course of conduct, had taken in some degree the means of his defence into his own hands. But the defendant went further than this, and taking advertisements in Mr. Wakley's own paper, the *Lancet*, he showed that there the proposition was made to present Mr. Wakley a testimonial of some value for his conduct on this inquest. This, it was contended, showed that his zeal had affected his conduct in the inquiry, and gave rise to the reflection that he was eager to find proofs and pretences for the jury to censure the conduct which he himself condemned. The court was bound to say that it was not unreasonable to put this construction on his conduct. The court gave him full credit for the sincerity of his opinion, and its justice was in some degree proved by the fact that it had been partially adopted by the State since that time. But was that opinion to influence his conduct as coroner? to induce him to exclude evidence that should have been admitted? and to the commission of injustice towards any individual? and to do those things which there was no doubt had been done in this case? Their lordships did not think that he was in a state to ask them to sanction proceedings which were unfortunately erroneous, or allow a criminal information against the party who had commented on his execution of his duty on that occasion; and, therefore, in the exercise of their duty in these circumstances, they thought it right to say that the rule must be discharged.

This judgment created a marked sensation through the court.

The attorney for the *Medical Times* was Mr. Cattlin, of Ely place, Holborn. The attorneys engaged on the other side were Messrs. Loftus and Potter, of the City.

#### WESTMINSTER HOSPITAL.

##### DENTAL OPERATIONS UNDER THE INFLUENCE OF ETHER.

[To the Editor of the Medical Times.]

SIR,—The following is an extract from a speech made by Mr. Hale Thomson, one of the surgeons of Westminster Hospital, at the Westminster Medical Society, and reported in the *Lancet* and *Medical Gazette* of the 23rd ultimo:—

"Experiments made with instruments not at all calculated to develop the proper effects of ether were injurious to the character of the agent, and retarded the progress of our inquiries. He illustrated the baneful effects of this kind of proceeding by reference to the miserable and painful exhibitions which had taken place in the dental operations at the Westminster Hospital; where not only delirium but convulsions, and almost asphyxia, had been the unfortunate results."

Now, as these assertions were totally devoid of truth, I considered it my duty to bring the subject before the weekly committee. I beg to subjoin their report, and shall feel obliged by your giving it insertion in your valuable journal.

I am, Sir, your obedient servant,

J. CHITTY CLINDON, M.R.C.S.

Dentist to the Westminster Hospital, and Lecturer on Dental Surgery.

15, Conduit-street, Feb. 2. 1847.

"At a meeting of the House Committee of the Westminster Hospital, held on Tuesday, 26th of January, 1847, it was resolved,—That the attention of this committee having been called to the paragraphs in the *Lancet* and *Medical Gazette* of the 23rd ult., reflecting on the mode in which dental operations have been performed under the influence of ether in this hospital; and having heard evidence upon the subject from several physicians and surgeons who were present at the ma-

jority of operations, we are of opinion that there is no ground whatever for the statements made; but, on the contrary, that all the operations were performed by the dentist in the most scientific manner."

(Signed) "F. J. WILSON, Secretary."  
(Extracted from the Minutes.)

#### A WORD TO THE MEDICAL OFFICERS OF THE ARMY AND NAVY DEPOSITORIES.

GENTLEMEN,—The recent attempt to destroy the prospects and reputation of three of your brother officers, and to break down, through them, the independence and general character of your department—to destroy, in fact, public confidence in you as gentlemen, and men of honour—cannot fail to have suggested to you already, as it has done to me, the necessity of your speedily adopting an organization calculated, for the future, to protect you from the shafts of malevolence, from whatever quarter they may arrive. For surely you cannot but agree with me, that a numerous and honourable department of her Majesty's service has been saved from one of the most extraordinary onslaughts on its character and effectiveness, not through any interposition of its own superiors, or from any intrinsic exertions, but solely from the unaided effort of a single public-minded individual totally unconnected with you or your service. You, of course, will understand I mean the Editor of the *Medical Times*. Now, however much you may feel obliged to that gentleman for his extraordinary efforts on your behalf—and which you no doubt will acknowledge in a way becoming a great department, still it would be a species of insanity were you to peril again any individual of your corps to so dangerous a predicament as that in which Drs. Warren, Hall, and Reid lately stood. Therefore, as an old brother officer, let me beseech you speedily to organize yourselves, and acquire in London a central point of union—a library, a museum—a home, in fact, where you can concentrate your energies in defence of your department, or of the individuals composing it, from all unjust attacks.

I have the honour to remain,  
Gentlemen, with great regard and respect,  
AN OLD BROTHER OFFICER.

#### CURIOUS FACTS.

[To the Editor of the Medical Times.]

SIR,—Imagine a stranger making the circuit of London, within seven miles of the Post-office, in search of a medical practitioner:—

After passing Hill and Dale, and Riding North, South, and West, he might Wade by Flood and Eyre, until he encountered a Gale, or his progress were arrested by a Marsh or Ridge, with Mould, Stone, Chalk, Winstone, or Clay. He would pass Summers in the search, and, although never Farre from Town, would take Wing and see Derbyshire, York, Lankester, Birmingham, Edenborough, Lincoln, Richmond, Hastings, Clifton, Wakefield, Taunton, Newport, Sheffield, Ireland, Paris, Holland, and France, and, by the Way, Rouse a Roc, a Buck, a Wildbore, a Hare, a Badger, a Fox, and a Wolfe.

He would pass an *Avery* with a Peacock, Raven, Eagle, Partridge, Wildgoose, Drake, Jay, Finch, Martyn, Gull, Parrott, Starling, and Swan; a Park with an Oak, a Grove with Garlick, a Meadow with a Bull, a Shepheard with a Lambe and Crook, a Field with a Yeoman and Hay, and a Fisher with Salmon, Roche, Hering, Ray, Pilcher, and Eales.

He would pass Dry Wells with Brydges, a Day and Knight with a Moon, a Hall with a Porter; and would see a Brewer, Baker, Chandler, Tanner, Dyer, Cutler, Taylor, Collier, Butler, and Procter; and would derive consolation from the sight of a Chapell with a Pope, a Bishop with a Cross, a Dean with a Challice, a Munk with a

Staff, and a Nunn with a Hood: but no Power in the World could Ward him from a Dunn. As he journeyed by Frost and Snow, he would not forget Mackintosh, Mantell, and Cape. He would meet a Scott with a Tweed, a Carter with Oates, a Fowler with a Bird, a Gardener with a Garland, and see a Greenwood with a Rose, Thorne, Budd, Moss, and Roots. He would pass a Doubleday with Dudgeon, Moody, and Pout; and Weekes with Gaye, Merriman, Noyes, Strutt, Gamble, Bragge, and Boast. He would see Waters Boyle, Hogge and Bacon, Doughty and Coward, a Squibb with a Sparke, a Taylor with a Bodkin, Shute with a Steel, a Locke with a Key, and Syder, Sharpe and Sweete. He would pass English French and Welch, and would see a Castle with a King, Duke, Barron, and Squire, and a Warder with a Banner. He would raise a Huc, and behold a Mann with Boddy, Legge, Foote, Hands, Back, and Braine: and, lastly, he would meet Candle with Wigg, Spencer, Slipper, Bonnett, and Beard!

N.B. All the names are to be found in the "London Medical Directory" for 1846.

INFLUENCE OF LIGHT ON VEGETATION.—Signor Zantedeschi has been engaged in investigating the subject of the influence of light refracted through coloured glasses on the vegetation of plants and the germination of seeds; and he finds that every coloured ray is more or less injurious to the vegetation of all vegetables, more or less, because the influence is not equal on all species of plants. This is not simply a physico-chemical but a physico-chemico-physiological phenomenon, intimately connected with the organization and the juices of the plant submitted to the experiment. He has also ascertained, by experiment, that the coloured rays of light exercise a beneficial influence on the germination of seeds, promoting its development; and finds that this influence stands neither in relation to the thermic nor to the illuminative power of the rays, but is in close connection with the different species of seeds. This fact is important in horticulture, as by its means an earlier development of seeds may be procured.

#### MORTALITY TABLE.

For the Week ending Saturday, Jan. 30, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1153	1068
SPECIFIED CAUSES...	1152	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	136	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat .....	107	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	157	170
Diseases of the Lungs, and of the other Organs of Respiration ....	484	354
Diseases of the Heart and Blood-vessels.....	48	32
Diseases of the Stomach, Liver, and other organs of Digestion .....	76	70
Diseases of the Kidneys, &c.	20	8
Childbirth, Diseases of the Uterus, &c.	15	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	10	7
Diseases of the Skin, Cellular Tissue, &c. ....	6	2
Old Age.....	69	81
Violence, Privation, Cold, and Intemperance.....	24	30



No. 385.

## SUMMARY.

FEB. 13.

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A

## COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the THEATRE of QUEEN'S COLLEGE, Birmingham.

By SAMUEL WRIGHT, M.D.,

Physician to Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; Physician to the General Dispensary; Extraordinary Member, and formerly Senior President, of the Royal Medical, Royal Physical, Hunterian Medical, and Cuvierian Natural History Societies of Edinburgh, &c.

*Cholera of 1846; meanings of the term cholera; accession and symptoms of that last year; varieties; character and composition of the dejections, and of the vomited matters; cramps, and their situations; absence of biliary secretion; pathological features of retention of bile; deficiency in the renal secretion; absorption of urea; states of the skin, extremities, salivary and buccal secretions; terminations of the disease; post-mortem appearances; relations of the cholera of 1846 to the Asiatic variety; illustrations of the latter; probable pathology of it; contagion and infection of cholera not proven; general symptoms of the two forms of cholera; common cause of them, and what it is; post-mortems of the two differed mainly in reference to the blood and urinary bladder; this difference only in degree; conclusion.*

GENTLEMEN,—We have one other variety of the epidemic vomiting and purging, prevalent last year, to treat of. This is that which was known by the name of cholera. This term, as perhaps you are aware, has two very opposite significations. It originated with Hippocrates, and, according to Celsus, signifies *bile flux* (*χολη* and *ρεω*); and according to Trallian, *intestinal flux* (*χολας* and *ρεω*). It may, therefore, designate that form of purging in which the dejections are remarkable for their abundance of bile, or the other form, in which they are equally remarkable for the want of it. In this respect, the term cholera well applies to the ailment of which I have now to speak. It was towards the latter end of the spring of last year that this cholera made its appearance. It was preceded, as I told you in my last lecture, by simple fever, diarrhoea, and dysentery. In some instances, these were consecutive of each other, in the order in which I have enumerated them; but, in the majority of cases, the diarrhoea and dysentery had no obvious pathological precedent. So was it with cholera. In a few instances, I observed it to follow the simpler gastro-intestinal disorder, but I could not satisfy myself that it followed as a *consequence*, properly so called. It attacked those who had previously been suffering, as those who had previously been in good health—introducing its particular symptoms instantly, and without any apparent pathological relationship to those that had had a prior existence. In not one case could I satisfy myself that the cholera was, strictly speaking, a *sequela* of previous gastro-intestinal disorder.

The occurrence of this cholera was generally sudden. There seemed to be no rule for its ac-

cession: at all hours, and under all circumstances—no matter what the age, or the strength, or the situation in life—it made its unexpected visit. In a moment an individual, previously healthy, felt a sense of prostration and anxiety, that was quickly followed by vomiting or purging, or both. On the instant of the attack, the pulse fell, the limbs became relaxed and listless, the surface grew pale and was shortly covered with a cold sweat; the sufferer sighed or feebly complained of exhaustion, and was then powerless for a few minutes. To this state succeeded one of reaction: the heart beat quickly, and its pulsations were full, yet feeble; the pulse had calibre enough, but it was easily compressible, hence it was evident that the reaction was the reverse of vigorous; the face became flushed, head hot, eyes bright and staring, skin dry and harsh. These symptoms again subsided, wholly or in part, and then came the vomiting and purging. In some cases, only one of these occurred, viz.—the purging. It rarely happened that there was vomiting unconnected with intestinal disturbance and discharge. As a rule, the two occurred conjointly, or consecutively, the purging being by far the more severe. This was in some instances so excessive and constant, that the poor sufferer had no alternative of remaining in a position to facilitate it. In one case, in particular, that came under my notice, an unfortunate wayfarer, thus seized, was kept a prisoner in a field for several hours. Sometimes the evacuation was easy, and entirely free from pain or anxiety; again, it was excessively painful—not the pain of tenesmus, but described as shooting along the course of the transverse colon, or twisting round the umbilicus: and, again, there was a sense of depression and exhaustion preceding the discharge, increased as this passed away. The dejections were, at first, barmy-looking, or greenish, frothy, and accompanied with much flatus; subsequently they became pale and odourless, and completely fluid, like gum-water, rice-water, or thin gruel. They contained no bile; a good proportion of saline matter; a little fatty matter; had an alkaline reaction, usually; and their chief constituents were albumen and mucus, the latter being in much the larger proportion.

The vomiting, like the purging, was moderate or excessive; painful, with severe retching, and anxiety, and persistence; or comparatively easy, and of short duration. The matters first ejected were generally the whole, or the residue, of a meal; mucus, thick and tenacious; and bile, yellow, or greenish. Shortly, however, they be-

came so like the dejections as to be undistinguishable from them: analysis showed the discharges to be similar.

In the generality of cases, the patients suffered from cramps, sometimes most severely. These rarely affected the arms and hands; oftener the abdominal muscles; most frequently the thighs, legs, and feet. I met with occasional instances in which the spasms were so severe that the limbs could not be straightened, even by considerable force. Mr. Carter, of the General Dispensary, had a case in which the frequent contractions and relaxations of the muscles of the trunk and lower extremities prevented the possibility of the patient remaining one minute quiet in bed. Cases of this kind were not common: it seldom occurred to me to observe spasm of an intermittent or remittent form (*clonic spasm*); it was generally persistent and steady, at length passing away, either not to return, or not until after some interval of time.

The liver, as we have said, sent no bile into the intestinal cavity. It seemed, indeed, to secrete none. In cases running their course quickly, this pathognomonic feature would call for little comment, for we know how easily nervous shocks and mental emotions interfere with the functions of this viscus. Sudden fright has been known to occasion an almost immediate attack of jaundice; sudden rage has done the same; so has anxiety; so also excessive joy, sorrow, and ardent expectation. The peculiarity, however, in the cholera cases I am speaking of, was, not only that no bile was *ejected*, but that none appeared to be *secreted*. In cases that lasted from a few days to a fortnight, and longer even, no bile passed away, and none seemed to have accumulated. There was no bilious tinge of the skin, no tenderness or tumefaction in the right hypochondriac region, and the organ here situated appeared to have lost both its power and purpose. In a few instances there was a sharp pain under the cartilages of the right ribs, extending backwards to the point of the scapula, antecedently to the attack of cholera, and during the first few hours of its continuance; but I could not satisfy myself of the pathognomonic character of this pain, especially as it was much keener, and much more sudden both in its accession and departure, than liver pains usually are; and, moreover, its reduction or removal was in no wise connected with bilious discharges, or with the occurrence of jaundiced skin. These latter circumstances are uncommon: often, indeed, you will find that a fixed heavy pain in the



right side, or under the right shoulder, will be relieved by a sudden bilious evacuation, or by a yellow tinge of the whole surface of the body—in the one case the bile has been discharged, in the other absorbed, and so the liver has become free of it. In the cases I have alluded to, I could not account for the advent or the exit of the anomalous pain, nor was it easy to understand why the liver should seemingly suspend its functions for a considerable time, and yet neither itself nor the system generally be the worse for this strange irregularity.

The kidneys, again, secreted less than natural. In the severer cases there was scarcely any urine passed; but in these, urea could almost always be detected in the blood; and often the patients complained of that peculiar form of oppressive headache which we generally find connected with the circulation of renal products through the brain. In the rare cases in which there was sensible perspiration, with diminished or suspended urination, the skin evolved an odour, urinous or ammoniacal.

Generally, however, the skin was quite dry, harsh, shrivelled, and cold; the extremities especially were benumbed and frigid, and discoloured from interrupted circulation.

The salivary secretion, and that of the mucous membrane of the mouth, were sometimes quite wanting; the tongue was dry and pale, or palish blue, and articulation scarcely distinguishable.

In these, the worst cases, the bodily powers were rapidly prostrated; the features shrunk and collapsed; the eyes became lustreless and encircled with a dark areola; the whole surface cooled and stiffened; the heart's action gradually became weaker, and death ensued; in periods varying from twelve hours (the shortest I knew) to a few days.

The morbid appearances were neither remarkable nor constant. The variety of them plainly showed that they were not to be trusted as evidences of the particular nature of the malady. Sometimes the mucous membrane of the stomach and intestines was found unnaturally red, in patches of variable size; again it was paler than usual, and easily detached, leaving the subjacent tissue apparently thinner and less firm than it ought to be. I have been told that in some cases ulcerations of the bowels were met with; but I cannot verify the fact from my own observation. Occasionally, the liver and spleen were congested; but as often they had no abnormal appearance whatever. So, also, was it with the lungs and brain. The bladder was always empty and contracted, but not rigidly.

It may be well for us now to ask, in what particulars this form of cholera differed from that usually denominated Asiatic? I must confess that it appeared to me rather to differ in *degree* than in *type*. I am not unprepared to speak practically upon this subject, having had many opportunities of seeing what was called "malignant cholera," when it ravaged this country about fourteen years ago. In the town of Nottingham it was particularly fatal, and, though it was confined to one or two not extensive localities, its work of destruction therein was awful. A dirty damp street, called, appropriately enough, "Coalpit-lane," was the chief scene of mischief. Through that wretched place the disease passed, like an "angel of death," leaving few upon whom its shadow had not fallen. I had the painful duty of attending one unhappy family, every member of which was a victim of the disease. Three children died of it—then the mother was its prey—and then the father—and all within one short week. The nurse had barely closed the door upon the last corpse that was hurried from it, when herself became death-struck, and she added one more to the funerals of that day. This is an epitome of a great catalogue of similar calamities I could lay before you, were it necessary, and time permitted. I have said enough, however, for the purpose I have in view. We have only to consider Asiatic cholera in so far as the epidemic of 1846 may bear resemblance to it.

I am not intending for a moment to dwell on the intrinsic pathology of the former disease. There has been no end of speculation upon it—and all to no purpose. Every man had an opinion concerning it, but no man seemed to have the correct one. Majendie said "it began where other diseases ended—in death," and few spoke more wisely upon it than he did. We know little of it except from its effects, and in endeavouring to trace these to their cause, the *fabricator lethi*, it would seem to consist in a sudden shock or prostration of the nervous system—that portion of it, especially, which contributes to organic and animal life. The intellectual functions were rarely suspended or prostrated like the other. This has long been the opinion of some of the best pathologists concerning cholera, and of the many theories that have been offered I think there is none preferable. It is but a theory, however, and we shall perhaps never obtain demonstrative truth of this strange subject.

But to proceed with our comparison. You will naturally expect that I shall say something about *contagion* and *infection*. Certainly the cholera of 1846 gave no evidences whatever of being either contagious or infectious. Like epidemic diseases in general, there were certain unhealthy localities that seemed to encourage its visitation and to increase its activity: in the same house, in the same street, or in the same district, numbers were attacked in rapid succession; but this did not prove that one communicated the malady to another, any more than that several being seized at once proved that in their respective persons the disease was mutually and simultaneously engendered and encouraged. All that were placed under the same general circumstances favourable to the accession of the ailment were of course liable to it at the same period; but it might happen that the majority would suffer at successive periods. This was the fact; but no evidence was furnished therein of the disease being transferred from one person to another. Nor do I for a moment believe that any such phenomenon marked the cholera of 1846—at least in so far as I had opportunities (and these were not few) of seeing and studying it. Such, also, is the result of my experience in Asiatic cholera. It does not consist with the duties of this chair that I should lay before you the bulky evidence on this subject from the contagionists on the one hand, and the non-contagionists on the other. Each would appear to have said enough to prove his doctrine; but parties that differ thus widely cannot both be right. The subject is, therefore, either not provable at all, or we want more data, and better deductions therefrom, before we can be certain of having reached the unequivocal truth. It does not become me to speak further in this purpose, than to give you my own opinion as the simple, unprejudiced issue of my own experience. That opinion, then, in no degree inclines to the contagious or infectious nature of Asiatic cholera. I beg you to receive it with what reservation you like, and I have not the least desire that you should receive it as utterly orthodox. It may happen that my opinion is an error; but it is the result of careful observation, and of deliberate unbiassed judgment. I cannot call to mind that I ever saw a case of Asiatic cholera which gave satisfactory proofs of having been communicated. In so far as I could discover, the same general circumstances were essentially the origin of whatever cases occurred to my observation. In that unhappy house which was cleared of its inmates, I was a visitor nearly every other hour of the day, and more than once of the night, for almost a week; yet I never caught the cholera. And, in truth, I was long enough at each visit in the sick-room, and sufficiently in contact with the patients, to have received the ailment, had it been a *diffusible* or a *penetrating* something. In common with others more fortunate than the poor sufferers, there can be little doubt that I owed my exemption to living in a better situation, and being better clothed and fed. No doubt, these circumstances saved me, even in the face of most harassing and

anxious professional labours. But, had I taken up my abode in the very spot where cholera was rife, and fared in common with the people there, it is more than probable that I should have soon been amongst the number of its victims.

In so far, then, as contagion and infection are concerned, my own opinion is, that there was nothing to distinguish the cholera of 1846 from Asiatic cholera, as this prevailed in England fourteen years ago.

As regards the symptoms, generally, of the two epidemics, they were certainly very similar. In the cholera of 1846, as I have told you, a sudden sense of nervous debility and depression was the usual precedent of vomiting and purging. Just so was it with Asiatic cholera; the only difference being, that in the latter the prostration was more complete. It was not uncommon, at the commencement of this affection, for the subjects of it to lose their sight, or hearing, or feeling, or to be paralysed for a time: these things, however, are not to be regarded each as a specific affection; they are all items of a general disorder (nervous debility) that differed more in degree than in kind from that observed in the cholera of 1846. Whatever the cause of the latter, there can be little doubt, in my opinion, that, had such cause been more active and potent, the nervous prostration would have equalled that of the worst forms of cholera.

The vomiting and purging were, of course only *symptoms*. Themselves did not constitute the disease, properly so called; they were merely an effect of it. They represented a more hidden and fearful pathological condition. It was rarely that patients were exhausted by their discharges alone. They chiefly fell before these discharges, and the causes of them, together. In the direct cases of Asiatic cholera there was neither vomiting nor purging, consequently no drain; yet the patient became cold, and his extremities livid, and his features collapsed, and he died; nobody could tell why. The nervous vigour seemed to give way at once, and there was no effort at rallying. There was nothing of this kind in the cholera of 1846. The vital depression seemed to stop short of this extremity, and only showed itself in the symptoms already enumerated. We know that sudden shocks to the nervous system, whether of fear, or fright, or anxiety, will often be followed by excessive action of the stomach and bowels. This is a well-known pathological fact, and therefore places the vomiting and purging of cholera in the class of *effects* rather than in that of *causes*. In so far, the two forms of cholera I am speaking of had everything in common. As regards the frequency, or force, or amount of evacuations, I certainly saw, last year, cases quite as severe as I ever witnessed in Asiatic cholera. I knew many such recover, the evacuations in which were greater than I had observed in many fatal cases of what was called "malignant cholera." I believe the difference of result to have been owing to the relative difference of nervous depression.

The cramps of the extremities were certainly as painful in the cholera of last year as I ever saw aforetime; and, whatever the real cause thereof, I think we shall not be very wide of probability in fixing it upon the disordered condition of the stomach and bowels. Gastro-intestinal irritation you will generally find to be the source of spasmodic pains affecting the muscles of the abdomen and extremities.

The suspension of the biliary, salivary, and renal secretions was not more conspicuous in one form of cholera than in the other: and, knowing how the functions of the secretory organs depend upon local and general nervous vigour, we can easily understand how, this being reduced, the secretive function would fail proportionately. Moreover, there was a general drain of fluids to the intestinal exhalents, which, in a state of morbid irritation, poured forth the serous parts of the blood which the relaxed vessels had not power to retain. Hence, also, the extreme harshness and aridness of the skin; a very natural consequence



of the derivation of fluids from the surface to the interior. The thickened blood, of course, collected in the capillaries, as well from the mechanical obstacle furnished in its own inspissation, as from the diminished power of the heart; hence the lividity of the extremities.

In all these particulars, the two forms of cholera resembled each other; and one common cause appeared to rule in both.

The *post-mortems* of the two were closely alike, except in so far as the blood and urinary bladder were concerned. In the severer forms of Asiatic cholera the blood was exactly like fluid pitch; it was quite black, and did not in the least coagulate. In the cholera of 1846 the blood was much darker than natural, and coagulated imperfectly. Physically, chemically, and vitally speaking, do these two states appear to be aught but variations of each other? In the cholera of last year the *post-mortems* showed the bladder to be empty, and partially contracted; the only difference observed in the same organ of those who died of Asiatic cholera was, that it was not only empty, but contracted to the smallest compass, and quite incompressible. But this state, again, seems to be only an extreme of the other.

On the whole, a deliberate comparison of Asiatic cholera and that of last year, in their signs, symptoms, progress, termination, and *post-mortem* aspects, brings me to the conclusion, that they differed not so much pathologically as in their relative degrees of severity. I believe that, had the remote and immediate causes of the cholera of 1846 been more potent, we should have had an epidemic quite equal in intensity to that which prevailed years back under the name of Asiatic cholera.

## DUMAS ON ORGANIC CHEMISTRY.

No. X.

### ON THE BLOOD.

(Continued from page 336.)

If doubts are found to exist as to the difference between the venous and the arterial blood of the same animal, we may readily conceive that this uncertainty will be much stronger when we come to speak of the blood of the capillaries, which is a mixture of the two kinds of fluid, and which may contain a greater or less proportion of either, according to the nature of the vessels existing in the region from which the blood is taken. M. Pallas examined the blood extracted by the pressure of leeches, which had been applied over the epigastrium, and found it richer in coagulable matters than the blood either of the veins or arteries. Blood furnished by scarification of the skin also indicated a similar result. M. Denis, in like manner, analysed this blood, but states it to be identical with that of the veins.

M. Prevost and myself have found the blood of the vena portæ poorer in solid materials than normal venous blood, taken at a mean calculation:—

	Blood of the vena portæ of an executed criminal.	Mean condition of venous blood drawn from the arm.
Water.....	801.4	789.9
Albumen and soluble salts	84.4	80.9
Globules.....	114.2	129.2
	1000.0	1000.0

M. F. Simon also performed some analogous experiments upon the blood taken from two horses: the following table will give the results at which he arrived:—

I.	Arterial blood.	Venous blood.	Blood of vena portæ.
Water.....	760.08	757.35	724.97
Fibrine.....	11.20	11.35	8.37
Fatty matters..	1.86	2.29	3.18
Albumen.....	78.83	85.88	92.40
Globules.....	136.15	128.70	152.29
Hematosine...	4.87	5.18	6.60
Extractive matters and salts.	6.96	9.16	11.88

## II.

	Arterial blood.	Venous blood.	Blood of vena portæ.	Blood of veins of liver.
Water.....	789.39	786.51	815.00	814.0
Fibrine.....	6.05	5.08	3.29	2.65
Fatty matters..	1.32	1.46	1.85	1.41
Albumen.....	113.10	113.35	92.25	103.20
Globules.....	76.40	78.04	72.60	57.18
Hematosine...	3.64	3.95	3.90	3.00
Extractive matters and salts..	10.00	10.82	11.62	11.31

In one analysis in which he separated the colouring principles of the blood of the vena portæ, he obtained:—

Water.....	801.50
Fibrine.....	6.20
Fatty matters..	2.70
Albumen.....	90.00
Globules.....	75.60
Hematosine...	3.40
Hemaphæine...	1.80
Extractive matters with hemaphæine and salts..	14.40

The same author likewise gives another analysis, but without noting the actual source of the blood. It is as follows:—

	Vena portæ.	Blood of veins of liver.
Water.....	738.00	725.00
Fibrine.....	3.50	2.50
Fatty matters..	1.97	1.56
Albumen.....	114.66	130.00
Globules.....	116.36	112.00
Hematosine...	4.92	4.42
Hemaphæine...	1.47	1.04
Extractive matters and salts	16.24	17.16

Lastly, we come to the experiments of M. Schulz upon the blood of the vena portæ, as compared with the arterial and venous blood of the same animals:—

	Arterial blood.	Venous blood.	Blood of vena portæ.
Nature of products:			
1. <i>Solid materials of blood of horse.</i> —			
Horse before feeding: mean of three experiments.....			
	15.56	18.60	16.90
Horse after feeding.....			
	22.91	19.5	20.30
2. <i>Fibrine.</i> —mean of three experiments..			
	1.04	1.09	0.32
3. <i>Albumen.</i> —Horse			
before feeding.....			
	9.86	7.96	8.16
Horse after feeding.....			
	11.11	11.25	9.67
4. <i>Globules.</i> —Horse			
before feeding.....			
	4.65	9.21	8.74
After feeding.....			
	10.21	6.95	10.53
5. <i>Fatty matters of the solid residue.</i> —			
Mean of four experiments.....			
	0.92	0.83	1.66

According to Simon and Schulz, the blood of the vena portæ possesses a darker colour than ordinary venous blood. Schulz, more particularly, states that the portal blood taken from the horse before feeding, when agitated with air or with oxygen, does not acquire the same bright colour as ordinary venous blood; the deeper its original tint, the greater the resistance that is offered to its coloration under the influence of these gases. It coagulates less readily than venous or arterial blood; its clot is much less firm, and partly, or even wholly, disappears, after being set aside for twelve or twenty-four hours. The fibrine, which separates from it by beating, does not form filaments of equal strength to those of arterial or ordinary venous blood.

M. F. Simon analysed the menstrual secretion when freed from all particles of epithelium, &c. This sanguineous fluid did not coagulate; it contained a little vaginal mucus, did not become corrupt, and was not very repulsive in its odour. It contained:—

Water.....	78.50
Fatty matters.....	0.26
Albumen.....	7.65
Globules.....	14.04
Extractive matters and salts....	0.86

The menstrual secretion appears to be a mixture of arterial blood and mucus; it is of a dark red colour; it does not coagulate like arterial or venous blood; but presents soft, grumous clots, which collect at the bottom of the vessel; there is, however, a separation of serum, which floats at the upper part. Some slimy matter may also be found among the clots. Its odour is peculiar and disagreeable.

The serum contains all the soluble materials of the blood; it is, in fact, a saturated solution of all the soluble principles of the system, circulating along with the other elements of the blood. In it we discover a certain amount of alkaline carbonates, phosphates, and sulphates, and especially chloride of sodium—a salt which, moreover, exists in greater abundance in human serum than in that of the ox.

According to Berzélius, human serum contains:—

Water.....	90.59
Albumen.....	8.00
Animal matter and lactate of soda ..	0.40
Chloride of sodium.....	0.60
Modified albumen, alkaline carbonates, and phosphates.....	0.41

The serum of the ox furnishes almost identical results.

Marec gives the following as the composition of serum in man:—

Water.....	90.00
Albumen.....	8.68
Chlorides of potassium and sodium ..	0.60
Muco-extractive matters.....	0.40
Carbonate of soda.....	0.65
Sulphate of potass.....	0.35
Earthy phosphates.....	0.60

According to Lecanu, the serum of human blood contains:—

	1st anal.	2nd anal.
Water.....	90.60	90.10
Albumen.....	7.80	8.12
Extractive matters.....	0.38	0.46
Fatty matters.....	0.22	0.34
Chlorides of potassium and sodium ..	0.60	0.55
Carbonate of soda.....	0.21	0.20
Phosphate of lime and magnesia ..	0.09	0.09
Sulphate.....	0.10	0.14
Loss.....	100.00	100.00

In some analyses performed by M. Prevost and myself, the serum left ten per cent. of fixed matters; M. Lassaigne found but nine per cent. in his experiments.

However this may be, it is evident that the serum varies in its composition according to the physiological or pathological condition of the individual furnishing it. If we experiment on serum obtained under the influence of digestion, we find fatty matter predominating in it, inasmuch that it even becomes lactescent, in an animal fed for a short time on pure fat. In like manner, do we find in it, in greater or less proportion, the colouring matter of the bile, the sugar of diabetes, &c., according to the prevailing pathological state.

MM. Becquerel and Rodier have lately published some analyses of the blood in various morbid conditions. The following are the results at which they have arrived:—(See next page.)

By comparing these analyses with those of normal blood, we find remarkable variations, more especially as regards the globules and the fibrine. The proportion of globules appears to be lowered in all diseases; and MM. Becquerel and Rodier regard this diminution as a consequence and invariable characteristic of the state of disease, at the same time that they partly attribute it to the influence of dieting. We may, however, observe, as an exception to what we have just said, that, in the state of sanguineous plethora, the proportion of globules to the other materials of the blood is in no way changed. Anemia, on the contrary, is characterized not only by the diminution of the



Nature of diseases.	Density of the defibrinated blood.	Density of the serum.	Organic materials in 1,000 parts of blood.										Composition of ashes of 1,000 parts of blood.			
			Water.	Globules.	Albumen.	Fibrine.	Extractive matters and salts.	Fatty matters.	Seroline.	Phosphuretted matter.	Cholesteroline.	Soapy matter.	Chloride of sodium.	Soluble salts.	Phosphates.	Iron.
Plethora { Man .....	1059	1029	780.4	138	72.3	2.4	6.3	1.555	variable.	0.483	0.088	1.014	3.7	2.9	0.341	0.547
{ Woman .....	1058.3	1028.8	784	131.5	75.1	2.1	5.8	2.150	variable.	0.673	0.114	0.138	3.5	2.8	0.334	0.544
Inflammation { Man .....	1056.3	1027	791.5	128	65	4.8	7	1.724	0.020	0.602	0.136	0.984	3.1	2.4	0.448	0.490
{ Woman .....	1051.5	1026.8	801	118.6	65.5	5.7	7.2	1.669	0.021	0.601	0.130	0.914	3.0	2.7	0.344	0.480
Typhoid fever .....	1054.4	1025.4	797	127.4	64.8	2.8	6.3	1.773	variable.	0.471	0.089	1.093	2.9	2.5	0.497	0.555
Ephemeral fever .....	1056.8	1025.5	781.7	142.4	65.7	2.8	5.8	1.770	variable.	0.563	0.112	1.005	2.7	2.8	0.321	0.569
Pleurisy .....	1055	1026	798.6	120.4	65.4	6.1	7.6	1.905	variable.	0.703	0.182	1.020	3.0	2.0	0.478	0.461
Pneumonia .....	1052.6	1025	801	122.5	61.1	7.4	6.4	1.687	variable.	0.504	0.101	1.062	2.8	2.7	0.308	0.493
Acute bronchitis { Man .....	1056.7	1027.1	793.7	129.2	64.9	4.8	5.8	1.621	variable.	0.479	0.169	0.952	2.2	2.9	0.346	0.513
{ Woman .....	1056.6	1027.7	803.4	115.3	68.8	3.5	7.3	1.751	variable.	0.600	0.072	1.059	3.3	2.8	0.309	0.479
Acute rheumatism .....	1055.5	1025.8	789.9	118.7	66.9	5.8	8.1	1.647	variable.	0.479	0.147	1.000	3.5	2.5	0.445	0.452
Chlorosis .....	1045.8	1028.1	828.2	86	72.1	3.4	8.8	1.543	variable.	0.541	0.054	0.888	3.1	2.3	0.441	0.319
Pulmonary tubercles { Man .....	1056.7	1028	794.3	125	66.2	4.8	7.7	1.554	variable.	0.591	0.084	0.800	3.3	2.7	0.493	0.489
{ Woman .....	1055.4	1028.2	796.8	119.4	70.5	4	7.6	1.729	variable.	0.601	0.082	1.011	3.1	2.5	0.302	0.484
Constitutional syphilis .....	1060.1	1028.5	777	138.1	71.8	2.23	9.3	1.820	0.027	0.640	0.115	0.972	3.4	2.7	0.282	0.566

total mass of the blood, but also by a remarkable falling off in the proportion of the globules.

The fibrine likewise undergoes very considerable variations, but these are sometimes in one direction, sometimes in another. MM. Andral and Gavarret had previously demonstrated that, in all inflammations, the proportion of fibrine was notably increased. The experiments of MM. Becquerel and Rodier, while fully confirming this fact, further establish that the augmentation of the fibrine coincides with an evident diminution of the albumen and with an increase in the amount of cholesteroline.

MM. Becquerel and Rodier admit that the fibrine diminishes in low fevers and in agues, as also in certain morbid states induced, like scurvy, by unwholesome and insufficient diet. A remarkable circumstance is, that the proportion of fibrine in the blood does not vary in consequence of repeated venesection: the globules alone are found to diminish. This may be owing to the fact, that the impoverished blood may be capable of reproducing this element at the expense of its albumen, or else that it may instantaneously take up again from the organs the fibrine with which it has a natural tendency to become saturated; whilst the reparation of the globules is effected by a more elaborate process of the organization.

When a secretion is suppressed, the materials which, in the normal state, the secreting organ should eliminate from the blood, will become concentrated in this liquid. Thus, in icterus with retention of bile and decoloration of the faeces, MM. Becquerel and Rodier have found in the blood a marked augmentation of cholesteroline.

The albumen of the serum is greatly diminished in Bright's disease, and also in certain affections of the heart complicated with dropsy.

MM. Andral and Gavarret have deduced some important results on this subject, and which I have arranged in the form of tables. The principles which they establish may be summed up as follows:—1. The organic materials do not diminish simultaneously; their diminution or increase takes place in a perfectly independent manner, as will be proved on reference to the tables. 2. In any serious or primary disease, which may become complicated with some secondary affection, the blood will give, on analysis, the figures which correspond to both diseases. 3. We may, by analysis of the blood, always ascertain the moment at which the phenomena of exacerbation or of amendment take place in the course of a disease. This fact is especially evidenced by the cases of Bright's disease, set down in the fourth table. 4. Spare diet and repeated venesections act chiefly on the number of the globules, which, however, are found to diminish in every diseased condition; the solid materials of the serum are likewise reduced in amount, but the fibrine forms an exception to the above condition.

APOTHECARIES' HALL.—Gentlemen admitted members, Jan. 7: John Frederiek Stevenson.—Feb. 4: William Philip Harrison, Edwin Simpson.

NAVAL OBITUARY.—Surgeons: R. H. Beaumont, P. Henry, G. Hogan, R. Austin, J. Kittle, R. Butler.—Assistant-Surgeons: A. Kift, E. Pinkerton, T. Wallace.

No. I.—Diseases in which the Fibrine augments.

DISEASES.	Number of Patients.	Number of Bleedings.	Fibrine.	Globules.	Solid matters of the Serum.	Water.	Serum.		
							Organic matters.	Inorganic matters.	No. of bleedings in which these matters were analysed.
Acute articular rheumatism ..	14	43	6.8	101.6	86.1	805.5	79.3	6.8	22
Subacute and chronic rheumatism ..	10	10	3.8	108.2	95.3	792.7	89.0	6.3	7
Pneumonia ..	21	58	7.8	113.0	81.5	797.7	75.0	6.5	42
Acute capillary bronchitis ..	6	9	6.6	123.9	76.6	792.9	69.7	6.9	3
Chronic bronchitis, with pulmonary emphysema ..	4	5	3.0	121.2	83.0	792.8	76.3	6.7	3
Pleurisy ..	12	15	4.8	110.5	86.3	798.4	78.9	7.4	11
Acute peritonitis ..	4	8	5.0	99.0	85.2	810.8	77.7	7.5	7
Tonsillitis ..	4	6	5.5	105.3	91.9	797.3	85.1	6.8	5
Erysipelas ..	5	8	5.9	99.2	88.2	806.7	81.6	6.6	8
Pulmonary tubercles ..	21	22	4.4	100.5	85.4	809.7	79.0	6.4	11
Various inflammations ..	..	..	5.4	111.4	97.4	785.8	..	..	..

No. II.—Diseases in which the Fibrine remains normal in quantity, or diminishes, at the same time that the Globules remain normal in quantity or augment.

DISEASES.	Number of Patients.	Number of Bleedings.	Fibrine.	Globules.	Solid matters of the Serum.	Water.	Serum.		
							Organic matters.	Inorganic matters.	No. of bleedings in which these matters were analysed.
Precursory stage of continued fever ..	6	9	2.4	135.6	89.1	772.9	82.4	6.7	4
Simple continued fever ..	5	10	3.6	106.5	88.1	801.8	80.6	7.5	7
Continued fever complicated in its course with some inflammation ..	6	11	3.5	116.8	86.7	793.0	80.2	6.5	5
Typhoid fever ..	20	50	2.7	115.7	81.8	799.8	75.3	6.5	19
Varicella ..	5	12	2.9	109.2	90.8	797.1	83.8	7.0	2
Varicella ..	..	..	2.3	120.3	91.8	785.6	..	..	..
Rubeola ..	..	..	2.4	125.8	89.7	782.1	..	..	..
Rubeola ..	7	9	2.8	127.2	80.4	789.6	73.7	6.7	4
Scarlatina ..	..	..	3.1	146.0	89.4	761.5	..	..	..
Scarlatina ..	..	..	3.5	136.0	84.1	776.3	..	..	..
Intermittent fever ..	6	7	3.4	104.3	80.6	811.7	74.0	6.6	4
Cerebral congestion ..	15	21	2.7	119.5	89.7	788.1	82.4	7.3	13
Cerebral hemorrhage ..	7	8	2.9	135.2	81.1	780.8	74.7	6.4	3

No. III.—Diseases in which the Globules of the Blood are spontaneously diminished.

DISEASES.	Number of Patients.	Number of Bleedings.	Fibrine.	Globules.	Solid matters of the Serum.	Water.	Serum.		
							Organic matters.	Inorganic matters.	No. of bleedings in which these matters were analysed.
Commencing chlorosis ..	5	8	3.5	106.8	88.7	801.0	82.4	6.3	4
Confirmed chlorosis ..	9	12	3.7	95.5	86.5	850.3	79.3	7.2	4
Chlorosis in a man ..	1	3	3.6	84.0	92.1	820.3	85.0	7.1	1

No. IV.—Diseases in which the Albumen of the Serum is diminished.

Bright's Disease of Kidney.	Fibrine.	Globules.	Solid matters of Serum.		Water.	Remarks.
			Organic.	Inorganic.		
1st case ..	1.6	126.6	61.5	7.6	801.7	The lymphatic ganglions of the neck were inflamed, but the urine contained no albumen.
2nd case ..	2.3	61.6	60.8	7.6	887.6	
3rd case—1st bleeding ..	3.2	82.4	57.9	6.9	849.6	
2nd bleeding ..	3.0	88.2	66.0	6.7	836.1	
3rd bleeding ..	4.0	71.0	72.0	6.9	845.9	



## ORIGINAL CONTRIBUTIONS.

REFLECTIONS AND OBSERVATIONS  
ON INSANITY.

By JOSEPH WILLIAMS, M.D., &amp;c. &amp;c. &amp;c.

(Continued from p. 320.)

"Nemo mortalium omnibus horis sapit."

INSANITY VITIATES ALL ACTS.

PYROMANIA—INCENDIARISM.

Amongst other mischievous habits to which persons afflicted with moral insanity are subject, may be mentioned *pyromania*, or the instinctive wish to set fire to houses or public buildings. It has been stated that very old buildings are often selected by these weak individuals; I believe, however, the desire is not augmented by the antiquity of a structure, but generally arises from some other exciting cause.

The desire does not appear to be limited to any short interval, for we find Marie Franck, in Germany, who was executed for setting fire to a house, confessed that she had fired twelve houses in five years. Mr. Becker's servant, in this country, fired his house several times in the course of a few days; she was dismissed, and in the house of the next family she entered the same occurrences took place. She was tried and found insane.

This morbid propensity is more frequently seen in young girls where there is uterine disturbance, and it is extraordinary how many singular and capricious vices may arise from this cause; there is an intense love of mischief, and, as was before mentioned, such persons frequently manifest the wish or desire to break china or other objects of *vertu*. There is a woman who is always breaking the windows or glass cases of a confectioner in the City; she is sent to the treadmill for three months, but invariably, on the very first opportunity, visits the same house and does the same damage. I believe this has now occurred for some years; the probability is, as this woman has taken a great antipathy to the proprietor of the premises, that we shall some day hear of damage being committed which may never be repaired. I am sorry that the injury she has already inflicted was not directed against some one in civic magisterial authority, rather than upon the helplessly injured person on whom it has fallen, because it is probable, under such circumstances, that more *precaution* and judgment would have been shown in taking more efficient care of so dangerous an individual. But to resume: we often find young girls eating clay, earth, slate-pencil, sealing-wax, or contracting a relish for pins, or introducing needles or other extraneous substances into their arms, legs, and other parts of the person; some blacken their tongues, while others create artificial wounds; the most incredible tricks are sometimes played upon a doctor, if too credulous; this is no idle narrative of improbabilities or even of rare occurrences, but a record of facts, of which every medical man must have had numerous examples. During pregnancy, also, ridiculous fancies are often sustained, and extraordinary propensities are developed, which show themselves in various forms, sometimes in the love of extravagance, causing the individual to spend money most inconsistently, at other times rather encouraging the habit of accumulating, and occasionally leading to the most extraordinary and unnecessary habit of pilfering and peculating.

Homicidal insanity and incendiarism in men generally arise from cerebral excitement, occasioned by an irregular circulation of blood in the brain, there being often disease of the chylipoietic viscera; while in women it usually results from irregularity of the catamenia and from diseases of the uterus.

Pyromania or incendiarism, although frequently resulting from an instinctive desire or depraved moral feeling, is sometimes caused by hallucination; such an individual is monomaniac, and has some false reason, or imagines he holds some supernatural power, which gives him authority to enact the mischief; but it often appears to arise from no other reason than an intense desire to do mischief, as was exemplified in a youth who escaped from the York Lunatic Asylum to set fire to Bishop-Thorpe

Palace; in this instance, mentioned by Dr. Wake, it was quite clear that no hallucination existed.

The case of Jonathan Martin, who fired York Cathedral, has been instanced as a proof of his wish to destroy this building because of its antiquity; but, on closely reviewing his case, it will be found that he was dissatisfied with the doctrine preached, and, therefore, this lunatic thought he was compelled to do it for the glory of God, and by the act he imagined that the people of York would necessarily disperse to other places, where they would hear doctrine which he considered more sound. He acted, in fact, from an hallucination; he heard a voice telling him it was his destiny to destroy the cathedral on account of the errors of the clergy.

Now, when we consider the circumstances of this case, that Martin had seven or eight years previously been confined in a lunatic asylum for upwards of two years; that antecedently to the act he was always speaking of, and attached much importance to, his dreams; that he was always excited upon religious points—when such subjects were mooted his eyes became glassy, and his pupils much dilated; and that, having once formed the design, he had no rest night or day; that even when on his trial he showed such hilarity, saying—"he would do the same again," "that the finger of God directed his arm": all these, together with a review of the whole case, convince me that the jury judged wisely in pronouncing it the act of insanity. Dr. Prichard, however, appears to think that he was not altogether *insons criminis*, and considers this opinion to have been strengthened by Martin's subsequent conduct. For the medical evidence read *Med. Chir. Rev.*, vol. xi., p. 222; New Series, 1829.

In December, 1844, James Gibson was tried in the High Court of Justiciary, Edinburgh, for fire-raising; crime denied, and plea of insanity also put in. The prisoner was subject to hallucination, but he seemed prejudiced against the persons whose premises he had burned; he said they must be put down; that the landed gentry had requested him to do it; that the Queen was in the roads ready to bombard the town, and that he considered the town looked better since the burning.

He was a weaver; and on the night of the 20th of April he forced a shutter, opened the window, and set fire to his late master's premises by igniting a parcel of yarn; he had been discharged from Mr. Gnthrie's service; he first acknowledged the crime, then denied it, then confessed it again, stating it to have arisen from an irresistible impulse. Several medical men thought him insane, others that he was not so; some, who at first thought him sane, subsequently altered their opinions. The Lord Justice Clerk considered the prisoner's insanity was not of a kind which rendered him irresponsible for his actions, because he clearly retained a perception of the difference between right and wrong, and directed the jury to find accordingly.

The jury unanimously found the panel guilty as libelled, and he was accordingly sentenced to transportation for fourteen years.

It has been thought that the committal of the deed during the night, the secrecy attending it, and which prevented its proof except by circumstantial evidence, the feeling of resentment, the fact of the hallucinations becoming so numerous *after* he was arrested, and the presumed over-acting of his part—all sufficed to prove that the judge and jury in this case acted with discretion and justice. For a full account, see *Cormack's Journal*, vol. v., pp. 141—157.

## CLEPTOMANIA, OR THEFT INSANITY.

This form of moral insanity has been frequently observed by Pinel, Esquirol, Gall, Prichard, and most modern writers; and cases are not uncommonly occurring which are brought before our notice in the ordinary police reports.

This morbid propensity is generally found in females, and very frequently depends on derangement of the sexual functions; and instances are very numerous in which pregnant women have been misled by this unfortunate impulse.

There is a great similarity in these cases; and it often happens the things stolen are not valuable, and could be no object to persons in affluent cir-

cumstances. There are instances where families enter into an arrangement with the tradesmen they employ, engaging to repay them for any articles which may have been abstracted; and, it is said, goods are sometimes put in the way of such persons, in order subsequently to receive the proffered compensation. The habit is so deeply rooted that ladies have been known to steal bread from the table where dining, not being able to conquer the propensity; they do not appear to steal for the sake of the article, but from the intense desire to gratify this particular passion. The habit of secreting is by no means unusually observed in the insane; they very commonly hide money and other valuable or unimportant objects. I at present know a gentleman, who is insane, and who is supplied every now and then with money, which he hoards, and it has hitherto been quite impossible to ascertain where he has hidden it.

When called to give an opinion in these cases of moral perversion, it should never be forgotten to ascertain whether any of the family have been, or are, insane.

A curious case has been detailed by Sir Henry Halford, of a gentleman whose insanity manifested itself in his self-appropriation—he would get everything he could, and would part with nothing. He would not pull off his shoes when going to bed, and when requested to put on a clean shirt he would do it, but it must be over the dirty one. He would buy anything, but would pay for nothing. He was brought up before the Lord Chancellor, from the King's Bench, where he had been committed for not paying for a picture valued at £1,500. When Sir Henry Halford was asked his opinion, he referred the jury to the gentleman's house in Portland-place, where there was £50,000 worth of property of every description—the pictures, musical instruments, clocks, baby-houses, and baubles, all huddled together on the floor of his dining-room. The jury immediately found the gentleman insane.

The habit of theft is by no means uncommon in young persons, and children are frequently observed, at the bazaars, to misappropriate toys and other articles. Boys at school often pay visits, in numbers, at toy-shops and pastry-cooks, in order that better opportunities may be afforded for petty pilfering. This wicked propensity should be early checked, for, if persisted in, these early habits may subsequently pass into confirmed vice.

When it is found that any lady suffers under this morbid propensity, she should never be allowed to shop alone, and great circumspection should be maintained. In instances where it is found impossible to restrain the impulse, a removal to some house in the country should be suggested, where the absence of shops withdraws the temptation.

The propensity to theft is in some lunatics so strong that they never eat unless they steal their food; and they are obliged to be thus indulged by their attendants, who hide it daily, in different places, when, on returning after a short time, they find the place of concealment has been detected, and the food gone.

From a general survey of what has been already stated, it will be evident that, although it is very necessary and highly desirable in every possible way to cure insanity when present, yet that it is even of still more importance to prevent its occurrence at all; thus making true the old adage, "prevention is better than cure."

A man who has once been the occupant of a madhouse seldom regains his social position, and therefore it is so essential to remove all predisposing causes, and first as to intermarriage.

Intermarriage saps a country of its vital strength; it is this which has all but annihilated the ancient aristocracy of France; it is this which has reduced Spain to a third-rate power, and which has rendered the mental incapacity and the physical inability of the Spanish Grandee quite proverbial; it is this which in this country is daily perpetuating and extending insanity, especially amongst our own aristocracy; and, even when the mind does not give way, consumption and scrofula frequently result from these unnatural, these baneful alliances. I



turn my eye on a family, the product of intermarriage: I find many swept down by phthisis, and others showing indications of an early summons; and these again themselves perpetuating their ancestral folly, in marrying their near relations; and it is, perhaps, a much-to-be-desired and a providential circumstance that such weakness, when more closely repeated, exhausts itself; it being happier far that no issue should result, than that that issue should, with its earliest breath, indicate mental and physical exhaustion.

As a warning, I cannot refrain from mentioning the following example of the ill effects induced by the alliance of such close connections; it is where the father and mother were themselves the produce of near relations; they were double cousins. They have had nine children, eight of them were born idiotic, some being deaf and dumb, and when, to their great joy, a girl appeared who had some share of reason, their happiness was not yet gone; but their fondest hopes were only raised to be the more depressed, for, as this poor child reached the years of adolescence, her intellect, instead of expanding as she grew into womanhood, gradually decayed, and she is now an imbecile.

Idiots are very numerous in Scotland, more especially in the Highlands, and while it has been referred to the dampness, the cold winds, the insufficient clothing, the defective nourishment, the small, ill-ventilated and uncomfortable houses, yet very properly greater stress still is laid upon the intermarriages; and this appears to be proved from the fact, that the more isolated or insulated a tract of country is, the greater is the proportionable amount of idiocy; this has been especially noticed in the Western Islands of Scotland; it is the subject of very common remark as to the county of Fife, and it has been observed that the Isle of Wight has more than its proportionate number of idiots amongst the common people, and, if ocular testimony can add anything to its verity, I may state I never visited any place where idiots were allowed to roam about with such absolute freedom, and occasionally to the no inconsiderable annoyance and inconvenience of others.

Insanity prevails to a considerable extent amongst Jewish families, and, were it not that they do occasionally marry those of other climes, it is probable that more mischief would result than is even at present found; and that consumption, scrofula, and skin diseases would be even more prevalent.

Even amongst the Society of Friends, although so disciplined, with so much moral restraint, and with everything to combat the development of insanity, yet, notwithstanding their high state of moral excellence and virtue, predisposition transmitted by marrying within such a limited circle has already given evidence of so pernicious a system; and there can be no doubt but that these evils will augment, unless some of these fair and highly-favoured daughters of Eve diffuse their happiness and contentment amidst a wider and more extended sphere; and I am happy to find, from the recent report of the Registrar-General, that a gradual decrease is shown in the annual number of Quaker marriages. These declined from 76 in 1838, to 55 in 1844, from which it is to be inferred that the Society of Friends is dissolving into the general population of the country.

It is universally admitted that it is far better to prevent insanity than to cure it, for when once it has developed itself, whether the result of hereditary tendency or even of some accidental circumstance, the morbid diathesis is formed; and, independently of the danger of transmission, the individual who has once been deranged seldom regains his social position; and, when decided symptoms have once manifested themselves, the danger of recurrence after a cure is much greater than where the tendency has remained latent.

It is now established as a matter of fact, that a constitutional predisposition to insanity is hereditary; but those children born previously to insanity developing itself in the parent are much less liable to become so affected. It is also observed, not only that the predisposition is handed down from parent to child, but also the peculiar form of insanity is often perpetuated: thus the child of a monomaniac parent himself becomes monomaniacal,

while, where mania attacks a family, the descendants are often maniacal; and even minor peculiarities in disposition, temper, habits, and opinions, are constantly seen to descend from father to son.

Dr. Burrows supposes that insanity may pass over one generation, and then develop itself in the grandchildren or in the nephews; and he also considers that a child, born before the accession of insanity in the parent, is not likely to be affected, provided the parent had not hereditary tendency, but, if such predisposition existed, then the liability to the disease is great.

If insanity be so hereditary even when one parent alone transmits the predisposition, how much greater is the danger where both parents spring from an insane family! This evil should never be lost sight of, but an endeavour should be made to render some instructive information respecting the evils of intermarriage as diffusive as possible.

It has been before stated that the children of old and debilitated parents are more liable to insanity than those who spring from young and vigorous persons, and the evil consequences resulting to the child, when the mother has received a fright during gestation, have also been mentioned; the mere exposition of such facts at once points out the obvious prophylactic measures.

Those children who are predisposed to insanity, frequently, in early life, evince either a debilitated or an irritable and excitable nervous energy, and hence they are often subject to epilepsy, St. Vitus's dance, and other nervous affections; and when the system becomes more irritable, as puberty advances, a very slight cause will often suffice to excite into action the latent tendency.

Wherever hereditary predisposition exists, an endeavour should be made to counteract its tendency by mental discipline—the actions and thoughts should be regulated, the judgment should be strengthened, and a just comparison should be instituted respecting the various relations of external objects. The imagination will rarely require to be stimulated, but the necessity often exists for a regular and systematic exercise of judgment and comparison; distorted opinions upon any subject should be corrected, and a just appreciation of facts and their relative value to each other, and the inferences to be deduced therefrom, should be regularly carried out.

To practise and obtain the habit of self-possession is of the greatest importance, and the command of the will, wishes, and propensities, should be taught in early life.

The inclinations of a child must be subjected to some control, or he will subsequently become fickle; nothing is worse than overweening indulgence, it being most important to inculcate a proper degree of self-restraint. Children even of very tender years may be reasoned with, and may be very easily persuaded, when the greatest trouble would be occasioned in enforcing a command; but where any important error prevails it should never be overlooked; and to allow a child to go on from day to day, increasing in waywardness, is indiscreet and wicked; the character is perpetually forming, and the evil consequences of bad habits are constantly increasing; and not a few cases of insanity can be clearly referred to injudicious training in early youth. It should never be forgotten that temporary restraint in early life may prevent the necessity of permanent restraint subsequently.

Antipathies should be checked as soon as they appear, and this by reasoning and persuasion, rather than by intimidation and force. Some children evince dislike to colours, mirrors, or to various other objects of furniture, or to anything rough or warm; others are prejudiced against cats, dogs, or particular individuals; a judicious parent will see how necessary it is that such whims, fancies, and prejudices should be removed; but unfortunately it often happens that such caprices result from imitation, as from children seeing a mother fly from a black beetle, or screaming with terror on the approach of a spider. Now, almost invariably, when a mother is so weak-minded, her child imitates her example. Early impressions are most enduring, and hence how cautious should parents be. The children who have seen their

mother tremble when the thunder-storm approached, and, half distracted, seek shelter in the cellar, often throughout life evince the same weakness—the habit of self-composure is lost.

Children should never be excited, but especially just before going to bed, by narrating stories, frightful tales, or anything unnatural or disagreeable, indeed, by nothing that is termed “striking.” It is very important to ascertain the weak points, and to aid and assist in strengthening the mind by mildly exposing an error, if it exist, or by enlarging the capacity of the mind where there are contracted or imbecile opinions; “endeavouring to turn the obstinacy of the stupid into a cheerful and intelligent acquiescence, while the fugitive thoughts and the vacillating opinions of the silly and weak should be combated by forming the habit of perseverance and attention.”

In early life the powers of attention are weak, and therefore every endeavour should be made to sustain them even for a short time; this can hardly be expected unless an effort is made to find out the individual taste or talent. The great point in education is to fix the attention; and it should be remembered that it cannot ordinarily be maintained, for many hours together; and for young scholars, two hours at a time for scholastic duties is all that nature can afford, and anything exceeding this is only paralyzing the efforts for the next attempts.

The judicious instructor should take especial care to form or mould the character, and, while the diffident should be encouraged, the precocious should be restrained. The habit of thinking, reflecting, and reasoning, should be formed, but, above all things, fixedness of purpose should be substituted for vacillation and fickleness; and to attain this the attention should be directed to some subject or object which would necessarily occupy some portion of each day for several weeks together, taking great care that too much time was never devoted to such purpose in any one day. It is the regular, successive, and systematic habit of devoting the attention, that, in early life, does so much to strengthen the mind.

Education should be something more than what is merely speculative or fashionable, and, while metaphysics should not be entirely prohibited, yet I feel assured that in early life the investigation of facts, the analyzing and comparing them, and upon such comparison forming the judgment, is the proper way to obtain mental vigour.

In studying history each pupil should occasionally read aloud, the others taking notes, and subsequently replying to those queries which the well-educated and vigilant teacher would select for elucidation and instruction, there being necessarily some points of more peculiar interest and utility. The composition of essays is extremely useful in bringing out the powers of the mind, thus necessitating not only the investigation of facts, but also their comparison.

It will be of far more value in every respect to form judicious opinions upon daily occurrences, rather than to preoccupy the attention by metaphysical subtleties. We have heard in common parlance of a person being “a clever fool,” or of another “not possessing common sense, but only uncommon sense”; now, generally, this arises from faulty education; there is the intellect, but the talents have not been cultivated—such persons were probably in early life left entirely to their own guidance, and were not subjected to those wholesome restrictions which teach us self-control.

The mind should not be preoccupied by false or foolish ideas, as these are with difficulty displaced for the reception of that which is useful and true.

It is most important to fix the attention, to enlarge the capacity of the mind, and to improve the memory; facts should be gathered, and a due estimate formed of their relative value, great care being taken to remove anything even approaching to prejudice. But, while it is very desirable that the memory should be exercised, yet it is equally important that it be not over-taxed; it being found that, when it has been overstrained, it seldom regains its resiliency; and often, when too much or too early forced, it becomes not only impaired but is altogether lost on the first approach of age, and



at a time when others may be said to be in the full vigour and enjoyment of life.

How imperfect is the system of education for boys! It is true, in some of the modern grammar schools, a more rational plan is being gradually adopted; but look at our public schools—a universal law regulates the conduct of hundreds—the same system, the exact mode of teaching, and the identical studies are enforced upon all, whether capable or incapable of progressing in them; no notice is taken of predilection, peculiar talent, or ulterior advantage; and then, as to disposition, what so various? Amongst five hundred boys are we to expect the same predominant inclination? and yet punishment and reward are apportioned to all by one uniform rule; the consequence being that while from a particular act one boy receives merely wholesome discipline, this may be sufficient not only to curb but actually to break the spirit of another of less physical but of more acute mental capability. It is impossible that individual character can be studied in the larger public schools.

The fault in the education of boys generally is, that the moral emotions and affections form no subject of inquiry, regulation, or control—the heart is neglected, while the mind is tutored—the moral conduct and the moral sentiment but too frequently depend on formal rule, it does not result from *principle*. The mind should be directed to the beauties of creation, and, in examining generally the evidences of design, the thoughts should be led to Him who created all things. It would be

very desirable that lectures adapted to the capacity of the various auditors should be delivered upon Natural History and Natural Philosophy, these being rendered as interesting as possible by numerous illustrations and practical exemplifications.

In training youth there should not be merely a servile subjection, the restraints which are considered necessary being for the benefit of those under instruction, and not for their oppression. The error in most schools is, that there is no confidence between the instructors and their pupils, and this almost invariably arises from the indiscretion or the incapability of the former. There should be neither too much familiarity nor too great a reserve; but a mutual regard for each other should be encouraged.

There should be neither an excess of confinement nor an excess of liberty. Young persons require plenty of free and wholesome exercise, and during such time they should feel perfectly at ease, and be allowed to amuse themselves as they prefer, provided there is nothing objectionable in such sports; but if improper they should never be permitted, great care being taken to check, on its first appearance, indelicacy or cruelty. Some children are naturally destructive, and are always injuring insects and small animals; and delight in fighting and in cruel sports. It is universally admitted that the exhibitions of bull fights, cock fights, and executions are very demoralizing.

(To be concluded in our next.)

#### FACTS AND OBSERVATIONS

*As to the relative Value of Mesmeric and Hypnotic Coma, and Ethereal Narcotism, for the Mitigation or entire Prevention of Pain during Surgical Operations.*

By JAMES BRAID, M.R.C.S.E., &c.

Time works wonders: it is the great reformer. Never was this more strikingly displayed than in the revolution which has recently manifested itself in professional faith and practice, as to the possibility and eligibility of suspending consciousness by artificial contrivance during surgical operations. But a very few years ago, those who contended for the possibility of inducing such a condition by mesmeric or hypnotic processes were, by the great majority of the profession, looked upon as credulous fools or arrant impostors. The patients who had been so operated on, and were represented as having been thus saved from physical and mental suffering, were most mercilessly assailed as arrant rogues who ought not to be trusted. It was contended, in the face of their most solemn asseverations to the contrary, that

they *must* have felt pain, but, by constraint at the time, had managed to conceal exhibiting any physical manifestation of suffering, and, when aroused, for some sinister purpose, mendaciously denied the fact. Nay, there were not wanting even men of high standing in the profession who, in their rabid hostility to the new doctrine, went so far as to become the apologists of "cruelty to animals"; contending that the agony inflicted by the surgeon's knife acted as a *salutary stimulus*. Had such an absurd and cruel opinion not been openly avowed, and put upon record at the moment it was uttered, it could hardly have been believed possible that any intelligent member of the profession should have promulgated such a revolting doctrine—a doctrine, too, so much at variance with experience, as well as opposed to the dictates of humanity; for it is not well known to every practical surgeon, that the shock sustained by the nervous system is generally the greatest cause of mortality, subsequent to accidents and surgical operations?

No sooner, however, was the discovery of our transatlantic brethren made known in this country; that, by the inhalation of the fumes of ether, consciousness could be suspended; and that thus the pain of surgical operations might be mitigated or entirely prevented, than it was at once eagerly resorted to by the very individuals who were most zealous in their opposition, and most loud in their declarations of scepticism, as to the truth or worth of inducing a similar immunity from suffering by the former method. And let it be specially observed, that the evidence for the efficacy of the former method was precisely of the same character, and equally strong as that which sustains the latter, namely, the physical condition of the patients during the operations, and their personal testimony afterwards, as to their partial or entire freedom from pain during such operations. Now, however, medical men have become so humble and credulous, and, withal, so imbued with Christian charity, as to believe and admit that, after all, it is just possible that patients themselves may be the best judges as to the amount of pain felt by them during severe surgical operations and other physical inflictions; and, moreover, that it may be possible for such individuals to speak the truth.

It is undoubtedly true, that there were not a few members of the profession who were beginning to have a glimpse of the truth—who were perceiving that they had been too rash in their sweeping expressions of scepticism in respect to the mesmeric phenomena, and their practical importance—who were yielding to the pressure from without, and accumulation of evidence on the point, as to the power of certain mesmeric or hypnotic processes effecting this happy immunity from suffering during surgical operations.

The remarkable success of Dr. Esdaile, in India, was well calculated to arrest attention; and in an able article on the subject, in the "British and Foreign Review," for October last, the author avows, as the result of a dispassionate consideration of the amount of evidence on the subject, together with the known influence of certain processes on the nervous system, that the time has arrived when it is the duty of the medical profession to test the matter fully and fairly.

Inasmuch as this subject has been fairly tested last September, at Calcutta, before a committee appointed for the purpose, by the Government, I have thought it might be interesting to many of your readers to have the results of the investigation laid before them, so that they may compare the said results with those of the operations performed during the ethereal narcotism, so many interesting examples of which have lately appeared in the *Medical Times*. The satisfactory results of the latter mode, when properly managed, are now attested by the experience of medical men throughout the length and breadth of Great Britain, as well as America; and it is therefore now established beyond a doubt, to the entire conviction of every unprejudiced and intelligent member of the profession. Indeed there seems at the present time to be a perfect enthusiasm and rivalry amongst medical men of every condition, as to who shall prove the most zealous patrons of this

novelty. This may partly arise from the fact, that here is something they can see, and feel, and smell, as the cause of the peculiar condition induced by the ether; but is it not probable that there may be not a few who manifest their zeal for advancing the new method as a rival to the former method, which they had so vehemently and unreasonably opposed? May there not, moreover, be many who, wise in their generation, think the best mode of hiding their former delinquency and unreasonable dogmatical opposition, is to make a retreat under the shelter of the noise, and turmoil, and fumes, attending on this ethereal visitant? Be the cause what it may, it is of comparative insignificance, so long as suffering humanity profits by the change.

Having personally tried both methods, and satisfied myself of their respective powers for suspending consciousness, and thus saving patients both from the dread and suffering of surgical operations, I beg leave to offer a few remarks on what appears to me to be their relative merits; for I presume it will no longer be contended that the anguish of body and mental dread of the knife are desirable, either as respects the patient or operator.

My own experience of hypnotism, or mesmerism, was this, that in many cases of highly susceptible subjects, by proper management, they could be reduced to such condition as would enable them to undergo severe surgical operations, without their manifesting the slightest symptoms of consciousness or pain during the sleep, or nervous coma; and they would have no recollection of such on awaking; that, in other cases, they might manifest physical indications of suffering pain during the artificially-induced sleep, but have no recollection of it after awaking; and that, in other cases, there might be consciousness of what was being done whilst little or no pain was experienced by them. It always appeared to me, however, that a great drawback existed to these processes becoming generally available for such purposes, from the great length of time which was required in many cases to render the patients susceptible of going so deep into the sleep as is requisite to secure a complete immunity from pain, and especially so if they went into the sleep with the idea on their minds that the operation was to be performed there and then. In most cases it must have been necessary to put the patient repeatedly into the sleep, and to conceal from him the particular time when the operation was really intended to be performed, leading the patient, in fact, to expect it was to be done on some future day. Then, again, a considerable number of those who are susceptible of the influence to an extent sufficient for the cure of disease would not, even with all the above precautions, be readily reduced into the profound unconscious state requisite to ensure complete immunity from pain during surgical operations.

Such was my personal experience, and for these reasons I considered mesmerism and hypnotism far less available for such purposes with British subjects, than for the relief and cure of various forms of disease. The success of Dr. Esdaile, however, with Hindoos and Mahomedans, seems to have been very great; but still the objection as to the length of time required would be felt to be a serious inconvenience even with such subjects, compared with the rapidity with which the desired ethereal narcotism can be induced. Many individuals, for example, are not possessed of those physical and mental qualities requisite to secure entire success by the hypnotic and mesmeric processes; and comparatively few could be reduced into the state, provided they chose to resist complying with the conditions required. They are much in the position of the person who may have any quantity of wine or spirits set before him without becoming intoxicated, provided he effectually resists drinking them. If they are conveyed into his stomach, however, in sufficient quantity, intoxication is sure to follow, however much he might have attempted to resist their ingestion. Just so is it with the fumes of ether: we have the power of narcotizing patients by this agency, will they or nill they; drunkards, however, seem to be affected with difficulty by the ether. This is the great recom-



mentation of the ether method; then its greater rapidity in inducing the required coma, and the greater number of patients who may be thus rendered entirely unconscious, than by the mesmeric or hypnotic processes. In such cases, however, as can be readily sent deep enough into sleep by these processes, I should decidedly prefer this method, as the patient is less likely to experience after-inconvenience from mesmeric coma than from inhaling the offensive, narcotizing fumes of sulphuric ether. Moreover, certain states of constitution or of general health will contraindicate the application of the ether; and experience has shown that considerable difference exists as to the susceptibility of different subjects to its influence, some becoming highly excited and hilarious, whilst the majority are speedily rendered comatose.

But to return to Dr. Esdaile's operations performed during mesmeric coma. It is well known to your readers that the doctor published a book last summer, detailing his great success, of which cases you published a considerable number in the *Medical Times*. I shall not, therefore, now advert to the cases published in that volume, but confine my remarks and quotations to the cases operated on by him in presence of the committee above referred to, as your readers must feel assured they were not likely to afford the new heresy any special favour; and the following names will be sufficient guarantee as to the respectability and fitness of the individuals for the task imposed upon them by the Governor:—

The committee consisted of James Atkinson, Inspector-General of Hospitals, as chairman; Evelyn

M. Gordon; D. Stewart, Presidency Surgeon; James Hulme; J. Jackson, Surgeon to the Native Hospital; A. Rodgers; W. B. O'Shaughnessy, M.D. F.R.S., secretary to the committee.

The second, fourth, and sixth gentleman named are high officials in the Honourable East India Company's service. I believe they are judges.

The preliminary arrangements having been agreed upon, the committee assembled at the hospital on the 7th of September, 1846, when Dr. W. B. O'Shaughnessy was requested to act as secretary, record each day's proceedings, and keep minutes of the cases. It was also agreed that the minutes of each day should be read at the next meeting in Dr. Esdaile's presence, and that the meetings should take place at half-past seven A.M.

The committee accordingly assembled on fourteen successive days, and had under their consideration ten surgical cases taken by Dr. Esdaile from the general wards of the native hospitals, all needing operations of more or less severity. These cases are given in *outline* in the journal, and any remarkable phenomena exhibited are farther recorded minutely in the statement of each day's proceedings.

From the facts elicited by these cases, the committee deduced the following conclusions, as in their opinion being strictly warranted by the premises:—

"The patients treated were all native males, from eighteen to forty years old, Hindoos and Mahomedans; in all conditions of general health, from extreme emaciation to ordinary strength. Their diseases are specified in the annexed table:—

List of Persons subjected to Dr. ESDAILE'S Mesmeric Experiments.

No.	Name.	Age.	Admitted.	Disease.	Duration.
1	Cheedham	40	September 7	Double hydrocele.	Several months.
2	Bissonath	20	" 7	Tumour of scrotum.	Ditto.
3	Nilmoney	45	" 7	Tumour of scrotum.	Ditto.
4	Neechul	35	" 7	Phymosis.	Ditto.
5	Deeloo	40	" 7	Double hydrocele.	Three years.
6	Jahiroodeen	33	" 7	Hypertrophy of penis.	Two years.
7	Dohmun	40	" 10	Hypertrophy of scrotum.	Several months.
8	Ramchand	18	" 13	Hypertrophy of scrotum.	Two years.
9	Hyder Khan	30	" 16	Mortification of leg.	Fifteen days.
10	Murali Doss	30	" 14	Hypertrophy of scrotum.	Six years.

(Signed)

W. B. O'SHAUGHNESSY, Secretary.

Dr. Esdaile had stipulated that he should only operate on natives; that he should have the sole management or medical charge of the hospital wards set apart for his patients, to be submitted to operation during the mesmeric coma; that he should have, for his own subordinate hospital establishment, those employed by him as mesmerizers in Hooghly; and that there should be a daily sitting of the committee. The committee assented to these conditions, and made arrangements for three apartments being at Dr. Esdaile's disposal: one as a committee and operating room, the other two rooms provided with three beds each for the accommodation of the patients. The doors of these rooms opened into the committee-room and into each other, so that the committee could either enter these sleeping wards, or observe the appearance and conduct of the patients from their own room, as they might incline. Here, then, every precaution had been taken to guard against error or deception.

"The mesmerizers employed by Dr. Esdaile (says the report) were young men, Hindoos and Mahomedans, from fourteen to thirty years of age, most of them compounders and dressers from the Hooghly Hospital. To each patient a separate mesmerizer was assigned. The room in which they operated was darkened, but from time to time the committee were enabled to witness, through small apertures made in the door panels, the manner in which the processes were carried on. Profound silence was observed. The processes were continued for about two hours each day in ten cases, for eight hours in one case in one day, and for six hours in another case, without interruption. Three cases of the ten, Bissonath, Deeloo, and Neechul, were dismissed without satisfactory effect; Bisso-

nath suffering from slight cough, which Dr. Esdaile considered to render the mesmeric manipulation inefficient; Deeloo, on the fifth day, for having taken spirits; and Neechul having resisted the mesmeric processes during eleven days without conclusive result.

"In seven cases, in a period varying from one to seven sittings, deep sleep followed the processes above described."

I have considered it unnecessary to give their mesmerizing processes in detail, but I beg the reader's special attention to the following description of the peculiar character of the sleep thus induced, which I shall transcribe *verbatim* from the report:—

"This sleep, in its most perfect state, differed from ordinary natural sleep, as follows. The individual could not be aroused by loud noises, the pupils were insensible to light; and great, and in some cases apparently perfect, insensibility to pain was witnessed on burning, pinching, and cutting the skin and other sensitive organs.

"This sleep, in its general character, differed from that which would be produced by narcotic drugs, in the quickness with which, in eight out of ten cases, the patient was awake, after certain transverse passes and fanning by the mesmerizer, and blowing upon the face and on the eyes; in the natural condition of the pupils of the eyes and the conjunctivæ in all the cases after awaking, in the absence of stertorous breathing, and of subsequent delirium or hallucination, and of many other symptoms familiar to medical observers, which are produced by alcoholic liquors, opium, hemp, and other narcotic drugs. It is right, however, to add that in two cases the patients showed much confusion and disinclination to answer, and com-

plained of giddiness for some time after being suddenly aroused."

Here then, we have proof of careful observation and minute record of facts, as well as clear and accurate deductions, both as to the *reality and peculiarity of the sleep thus induced*.

"In seven cases (thus continued) surgical operations were performed, in the state of sleep above described.

"In the case of Nilmoney Dutt, there was not the slightest indication of the operation having been felt by the patient. It consisted in the removal of a tumour. It lasted four minutes. The patient's hands or legs were not held. He did not move, or groan, or his countenance change; and, when awoke after the operation, he declared he had no recollection of what had occurred.

"In another case, Hyder Khan, an emaciated man, suffering from mortification of the leg, amputation of the thigh was performed, and no sign of its causing pain was evinced.

"In a third case, Murali Doss (the operation he underwent being very severe), he moved his body and arms, breathing in gasps, but his countenance underwent little change, and the features expressed no suffering; and, on awaking, he declared he knew of nothing having been done to him during his sleep.

"A case of tapping one side of a double hydrocele is passed over as insignificant and inconclusive, although apparently painless, for the operation was repeated on the other side while the patient was awake, with the same result. The operation, too, is one daily borne without material suffering by numerous patients in all our hospitals.

"In the three other cases observed by the committee, during the performance of operations in the state of sleep above described, various phenomena were witnessed, which require to be specially pointed out. While the patients did not open their eyes, or utter articulate sounds, or require to be held, there were vague and convulsive movements of the upper limbs, writhing of the body, distortion of the features, giving the face a hideous expression of suppressed agony; the respiration became heaving, with deep sighs. There were, in short, all the signs of intense pain which a dumb person undergoing operation might be expected to exhibit, except resistance to the operator.

"But in all these cases, without exception, after the operation was completed, the patients expressed no knowledge or recollection of what had occurred, denied having dreamed, and complained of no pain till their attention was directed to the place where the operation was performed.

"It, therefore, becomes a question (the report further adds) whether the writhings and distorted features, in the three cases above described, are to be regarded as proof that the operations occasioned at the time the actual agony of which such symptoms are the usual evidence, or whether they were mere 'instinctive movements' (reflex or automatic movements) as Dr. Esdaile represents them. But our province is only to record facts, and not to enter upon that of the physiologist or the metaphysician.

"The general result arrived, at then, on the question of pain during the mesmeric surgical operations we witnessed, amounts to this, that in three cases there is no proof whatever that any pain was suffered, and that in the three other cases the *manifestations of pain during the operations are opposed by the positive statement of the patients that no pain was experienced*."

(To be continued.)

#### AMPUTATION FOR ULCERATION OF THE CARTILAGES OF THE KNEE-JOINT.—PHLEBITIS OF THE FEMORAL VEIN.—DEATH.

By H. EVANS, Esq., Surgeon, Pwllheli, North Wales.

W. T. aged thirty-nine, a farmer's son, had always enjoyed very good health until about three years ago, when the right knee-joint began to feel stiff, and at times to swell; but for six months after its commencement the pain in it was so trifling as not to forbid him from following his usual avoca-



tions upon the arm; when, without any obvious exciting cause, it began to be painful, and to enlarge. He was attended from time to time by a host of quacks, without getting a whit the better, but gradually losing flesh from the sharp attacks of inflammation in it; disturbed nights from violent "erampy," twitches. When I saw him the limb presented the following appearances: thigh and leg much wasted; the latter bent nearly at right angles with the former; patella remarkably prominent, and stuck, as it were, in the intercondyloid notch; partial dislocation backwards of the head of the tibia. There were three sinuses apparently communicating with the joint: one between the head of the fibula and the tuberosity of the tibia; the second, above the internal condyle; the third, in the popliteal space: all discharging more or less serous fluid mixed with pus. His general health is good, better than it has been; he has no pain in the joint unless the limb is moved carelessly. Having carefully ascertained that the heart, lungs, and kidneys were healthy, amputation was proposed and readily assented to by the patient and his friends.

The flap operation was accordingly performed, six arterial branches requiring ligatures. The patient lost but little blood, and bore the operation remarkably well; he was removed to bed, and took thirty drops of laudanum in a glass of camphor julep. The knee-joint, examined soon afterwards, presented the following appearances: the patella was fixed by a strong vascular membrane to the articular surface of the femur; the internal condyle had formed for itself a cup-shaped cavity in the head of the tibia, looking like an incomplete ball-and-socket-joint, except in its freedom for motion; the external condyle maintained its natural position; the articular and inter-articular cartilages were entirely destroyed; the cavity in the head of the tibia communicated by a large aperture with the sinus described.

He went on tolerably well for three or four days, pulse ranging from 100 to 120; breathing natural; bowels confined, and slightly tympanitic; slight nausea, occasionally vomiting, yet he took some beef-tea, sago, and arrowroot, every four or six hours. But he never slept well after the operation, though he took half a grain of morphia at bedtime.

Fourth day after the operation, the dressings were removed for the first time, when the margins of the wound were found to be adherent except at its outer angle, through which a great quantity of grumous blood had escaped; the flaps were puffy, a slight erysipelatous blush extended as high up the thigh as the trochanter. The stump and the thigh were well fomented, the former immersed in a large bread-and-water poultice, to be renewed three times a day. Pulse feeble; nausea combated with effervescing draughts; sago and beef-tea to be continued, and as much brandy and water as he can take without increasing the nausea.

Seventh day.—Discharge from the stump very profuse, still of the same quality, but mixed with flakes of lymph; redness has not increased; was delirious during the night, and partly so to-day; urine passed to-day, sparing in quantity, of high specific gravity, contains abundance of lithates; countenance wears a wild, anxious expression; does not recognise his nearest friends; takes brandy or wine when placed upon the tongue or between the lips.

Ninth day.—Is comatose since yesterday; urine and feces escape involuntarily; vomited during the night everything as it was swallowed. Died this evening precisely as if sinking under typhus.

*Inspectio Cadaveris.*—The stump was first inspected; two ligatures still remain attached to two small branches, all the others separated on the seventh day; there were no signs, during life or afterwards, of the superficial absorbents having been diseased; the flaps were adherent at the margins, but were easily torn asunder; when both flaps were reflected, about one inch of the femur was exposed, wholly divested of its muscular and periosteal coverings; itself healthy; the

entire surface of both the flaps was covered with a layer of thick lymph, which smeared with healthy-looking pus, here and there separating the flaps, bore a close resemblance to the pleura after a sharp attack of pleurisy. The source of the profuse puriform discharge was an abscess extending as high up as the trochanter between the superficial and deep fascia. An incision was next made very carefully down to the sheath of the femoral vessels, which, being displayed, were carefully laid open; the vein was found full of healthy-looking pus, and its serous lining for two or three inches at its distal end completely destroyed; beyond this, and extending nearly as high as the saphenous opening, the cavity of the vein was filled with coagulated blood, which at the valves, adhered so closely to the serous coat as not to be readily removed with the finger nail. The distal end of the femoral artery admitted the passage of a probe; when laid open, a clot of coagulated blood was exposed, beautifully adapted to its interior, terminating abruptly at the first branch that was given off; numerous enlarged lymphatic glands, in the course of the iliac vein, contained pus, but beyond that none could be found. Viscera of the chest and abdomen healthy.

*Remarks.*—What was the order of the train of symptoms, and the causes of them, which followed the operation? It is pretty evident, from the brief details of the morbid appearances, that nature made an attempt to repair the solution of continuity by throwing out an abundant quantity of coagulating lymph. Was the profuse puriform discharge from the stump, observed on the fourth day, the result of suppurative phlebitis of the femoral vein, or was the redness named an attack of erysipelas? The morbid appearances lead me to form the latter opinion; be that as it may, it is beyond a doubt that either the primary or the secondary suppurative phlebitis of the femoral vein, and the subsequent contamination of the blood by pus, were the cause of death. The iliac vein, vena cava, heart, and lungs were carefully examined for secondary abscesses, but none were detected; the liver, spleen, and kidneys, and with the same result: the last-named organs, however, according to the ingenious theory of Dr. Budd, are not so liable to purulent infection as where the portal vein or any of its feeders are attacked with suppurative phlebitis; but this strictly applies to the liver.

## PROGRESS OF MEDICAL SCIENCE.

### France.

#### ACADEMY OF SCIENCES.

*Meeting of Feb. 1; M. BRONGNIART in the Chair.*

STRUCTURE OF THE TONGUE AND OF ITS INTEGUMENT, IN MAN AND MAMMIFERÆ, BY T. M. BOURGERY, M.D.—Dr. Bourgery's memoir on these points is a correct description of the anatomy of the organ, but does not contain any original views.

#### PAINLESS OPERATIONS.—INHALATION OF ETHER.

A long debate on this subject occupied the greater part of the meeting, and was chiefly carried on between Professor Velpeau and M. Magendie.

M. Velpeau remarked that, since the last meeting, he had had several opportunities of applying the new method, and that the results had been exceedingly satisfactory. In one case of fracture of the thigh the patient presented violent convulsive contraction of the muscles, by which a proper adaptation was prevented; inhalation of ether caused them to cease, and permitted the fracture to be reduced with the greatest facility. On the next day, M. Velpeau had removed a tumour from the parotidian region, in a person previously submitted to ethereal influence. (See *Medical Times*, Feb. 6, Transactions of the Parisian

Medical Society.) In several other instances, M. Velpeau had been equally fortunate, and now did not hesitate to say that this discovery was one of the most important facts of the age.

M. Magendie would not join the enthusiasm universally expressed on the subject: the only thing which he very distinctly saw, was that experiments were being daily performed upon the human subject, and that was not a line of conduct which he could applaud. Patients were thrown into a state of intoxication, and in that condition submitted to operation; some were rendered unconscious of pain, but in others the ease was different; a patient had been spoken of who, during operation, rose, shook his gory hand, and escaped from the hands of the assistants. M. Magendie knew of a lady, who had been operated on when under the influence of ether, and who died forty-eight hours after. M. Magendie would ask, if it really was an advantage to deprive a patient of all consciousness of suffering during operation? Was it not useful to acquire from the manifestation of pain the knowledge of the neighbourhood, of a nerve for instance—and might not, in a deep wound, a ligature be thrown over a large nervous branch—if the patient did not express any pain whatever?

M. Velpeau and M. Serres answered that, hitherto, the so-called experiments had been made with the greatest reserve; and had not been productive of injury to any one of those who had been the subjects of them.

#### ACADEMY OF MEDICINE.

*Meeting of Feb. 2; M. BEGIN in the Chair.*

#### ETHEREAL INHALATIONS.

M. Jobert, after giving an account of several painless operations which he had performed, after the inhalation of ether, stated that three distinct periods might be recognised in the succession of symptoms, produced by ether—1, delirium; 2, unconsciousness; 3, collapse, attended with coldness of the skin: this third period should in no instance be permitted to appear. In any very long operation, in which abundant hemorrhage might be expected, M. Jobert thought it would be found safest to abstain from the inhalations; but in short operations, such as amputations, the method was perfectly applicable.

M. Blondin had, in three cases, operated upon persons submitted to the inhalation, and concurred in the opinion expressed by M. Jobert; however, he would say that he fancied the patient suffered during operation, but that the memory of pain was lost when he recovered from the ethereal ebriety.

Meeting adjourned at five o'clock.

#### FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

MELANOSIS.—This is a morbid production, which, regardless of its resemblance with certain natural black colouring matters of the body, we class with heterologous products, chiefly on account of its history, which resembles that of those deposits. During health a black colouring matter is observed on the choroid, on the posterior face of the ciliary process, on the skin, the nipple, and some parts of the brain; in the aged, we also notice the deposition of abundant black colouring matter on the surface of the lung. In disease, we observe a black colour, to be sometimes due to very different causes. It may thus be sometimes referred to a deposit of carbon, either spontaneously formed, or introduced from without; or, in consequence of chemical decomposition, a sulphuret of iron is sometimes thrown off, and deposited on our textures, so as to produce a dark aspect: it can also occasionally be referred to a chemical change of extravasated blood; or, again, to the accidental development of pigmented tissue; this last form constitutes real melanosis. In this accidental tissue the cells of natural pigment exist, but they are not so regular, and contain a nucleus and numerous



black particles, which are occasionally found in a state of liberty when the cells do not exist. Melanosis shows itself in four different forms:—1, in a state of infiltration; 2, in the shape of tumours; 3, cysts, containing a black fluid; and 4, on the free surface of some membranes. The two first forms have their distinct periods of hardness and softening; the third is sometimes seen in animals, as Henle has shown; and, as to the fourth, it is still a matter of doubt if it should not be referred to the decomposition of altered blood. We find melanosis in all our solids, membranes, and parenchymata; alone sometimes, and often progressing with other alterations; thus it is frequent to see parts affected with chronic inflammation assume a black colour; in old ulcers, in chronic pneumonia, in cancerous tumours, this is far from uncommon; in disease a yellow colour has been noticed; Lobstein has seen it in the pia mater enveloping the spinal chord of newly-born infants.

Cancer is a morbid production which has an inevitable tendency to ulcerate and to destroy whatever tissue it affects, and whatever be its aspect, form, or symptoms—hence its name; amongst its characters let us not omit its fatal disposition to be reproduced. Considering the subject more scientifically, we must look upon cancer as constituted by several anatomical elements; it is the most organized of all heterologous productions—an assertion which is easily demonstrated by the microscope, or even by simple inspection with the naked eye. The nature and relative proportions of these several anatomical elements, observable in cancer, cause it to assume varied aspects, although its fundamental nature remains unchanged. Thus the microscopic study of cancer shows it to be formed, in the first place, of a greyish amorphous substance, common to all accidental productions, in which are disseminated granulations more or less numerous; also cells of a peculiar form, and perfectly distinct by their size from those of melanosis, pus, or tubercle; these cells are furnished with nuclei and nucleoli, the number of the former in one globule varying from 18 to 30; other cells are found in cancer, only they seem concentric; or, again, are furnished with one or more fibrous appendages, which sometimes give the globule a fusiform aspect, which seems to be the first step to the conversion of the cell into a fibre. True fibres are also seen, parallel or fasciculated, or forming even an intricate network. Their numbers may exceed that of any other element of the cancerous structure. The differences in the relative proportions of these elements cause four principal forms of cancer:—1, scirrhus; 2, encephaloid; 3, colloid, or gelatinous cancer; and 4, melanic cancer. In scirrhus the fibrous element greatly predominates; in encephaloid it is the cell; in colloid cancer the fibres are numerous, but it is infiltrated with a gelatinous fluid, which is often contained in special areolæ; and in melanosis the only observable difference is the addition of a black colouring matter. We sometimes find these four forms of cancer combined in one tumour—a fact which proves the identity of their intimate nature; it is, however, useful to establish a separation between them, because their progress, and the special accidents which each may occasion, are not precisely the same. Scirrhus is a dense, hard, whitish tissue, lobulated and divided internally by fibrous intersections; it contains the cancerous juice, but in greater quantities, as it is observed, at a later date, and few or no vessels; after a time, scirrhus softens, and occasionally becomes infiltrated with a gelatinous fluid. Encephaloid cancer, so called from a certain degree of resemblance with cerebral substance, is of a dead white colour, hard at first, and differs materially from scirrhus by its vascularity. When cerebriform cancer softens, it may remain white, and resemble more and more closely a foetal brain in a state of decomposition; it is then called “medullary fungus”; or it may acquire from internal hemorrhage a dark, brownish, or red colour, and consti-

tute “fungus hematodes.” (Mem, this name has also been applied to a practical form of erectile tissues.) Cancer may be developed in all our textures, and possesses a remarkable tendency to extend to neighbouring parts, and to be reproduced after extirpation. This has been explained by the hypothesis of the passage into the veins of the cancerous cells; but the fact is not proved. Dupuytren and Brocchet vainly sought to produce cancer in animals by the introduction of cancerous matter into their circulation. Hyperemia may precede cancer, and facilitate its production, but it is not so in all cases; it may, however, account for the frequent return of malignant growths in the region from which a cancer had lately been removed by operation. During the period of hardness the tissues which surround the tumour are more or less modified by pressure, they may even be atrophied, and disappear. When the cancer softens, the vicinuous structures are gradually destroyed by ulceration, the veins open and absorb cancerous matter, or become obliterated by phlebitis. Hemorrhage during this period is far from uncommon, whether it originates from the vessels of the tumour, or from those of the adjacent parts. Many causes explain the general modifications observed in the entire system under the influence of cancer:—1, in the first place the local disorder; 2, the disturbance of the function of the diseased part; 3, the passage into the circulation (by endosmosis or by absorption) of cancerous matter; 4, phlebitis; 5, hemorrhage; and 6, compression and obliteration of veins.

#### PARASITIC VEGETABLE AND ANIMAL PRODUCTIONS.

We now come to the history of other accidental productions, which enjoy an independent life from that of the organ in which they arise. The question of their origin involves the important problem of spontaneous generation, and has not hitherto received a satisfactory solution. Amongst these independent organisms thus produced by disease, some belong to the vegetable, others to the animal kingdom. The former are all microscopic fungi, and placed on the exterior surfaces of the body: hence their name, “epiphytes.”

The causes which facilitate their production cannot be thrown into play without the interference of air, and seem to be somewhat akin to fermentation or decomposition. One chemical circumstance singularly assists their development: it is the conversion of a naturally alkaline fluid, such as serum, into a slightly acid compound; cells are formed in the fluid, which soon assume a tubular shape, and form the vegetable substance. (Dutrochet, Andral, Gavarret.) The experiment can be repeated easily by adding to serum a few drops of sulphuric acid; it is important not to precipitate the albumen, and, consequently, nitric acid should not be employed. The same occurrence will, therefore, be noticed whenever a naturally alkaline fluid will, during the accomplishment of any of our functions, come into contact with an acid, a circumstance not unfrequently observed on the skin in the galactophorous ducts of the mamma, &c. Of late years this question has been the object of much curious research, and vegetable productions have been observed in many fluids, and on the surface of several solids of the body; they have been met with in the urine in cases of diabetes mellitus, and of granular kidney; in milk, in the contents of the intestine, and in vomited substances; on the skin they have been observed in tinea capitis, in mentagra, and within the capillary follicles in pleia polonica, and also on the surfaces of old blisters, or of chronic ulcerations. These vegetable products have once been observed in the meatus auditorius externus, in mucous exudations, in a state of incipient decomposition, in the mouths of children affected with thrush. They are asserted to have existed in the intestinal ulcerations of a case of typhoid fever, and lining the excavations of the lung in a case of consumption; once even in expectorated matter—but for this we cannot vouch, we only record the state of

science. This is not all: they have been noticed on the surface of serous membranes, and also on false membranes of the pleura, communicating with air through a fistulous aperture.

The parasitic animal productions differ from each other far more than the vegetable; some belong to the class infusoria, and are developed only when signs of putrefaction are present: of this class is the “trichomonas,” lately described by Dr. Donné as characteristic of syphilitic pus. The animal parasites either belong to the surface of the body, as the various acari—pediculi, &c.; in which case they bear the name of epizoa, or they occupy the internal parts of the system, and are called entozoa. The division at present adopted for the latter is that proposed by Rudolphi, who classes them under four heads—1, hematodes; 2, crémátodes; 3, cestoids; and 4, cystids.

1. Hematodes are so called from their resemblance to a thread; several varieties present considerable interest:—A. *Filaria medinensis* occupies the cellular tissue of the limbs, and sometimes of the body or serotum. The animality of this worm has long been a subject of doubt, but cannot any longer form a question. This singular parasite is observed only in the tropical climates of the old world, or on persons lately returned from those countries; the body resembles a long thread, six or seven inches in length, and is terminated by a distinct head and suckers; hitherto, none but females have been met with, and inside their body numerous young filaria are found to exist—a circumstance which explains the numerous and ingenious precautions taken by the natives to avoid breaking the worm during its extraction. Abscesses and ulcers are the result of its presence under the skin. Very lately, small filaria have been found in the crystalline lens, in a case of cataract (in man). It is said they have also been met with in disordered bronchial glands—an assertion which cannot be received without much reserve. B. The trichina spiralis is a very small hematode which occupies the muscular texture, and produces little white stains. C. The trichocephalus is a small worm, visible, however, to the unarméd eyes; its anterior part, very thin, is convoluted; it occupies the cæcum and commencement of colon. D. The ascarides lumbricoides usually occupies the small intestine, but may pass into the colon, whence it is speedily expelled; or ascend into the stomach, and be rejected from the mouth: it has been seen to pass into the larynx, and we have ourselves noticed two instances of sudden death in children produced by this cause. M. Guersant has recorded a case in which these parasites had penetrated into the biliary ducts. Their sexes are distinct, and their organization very perfect. E. The ascarides vermicularis is much smaller than the former, and occupies exclusively the rectum. F. Another hematode presents some interest from the fact of its residing in a cyst; it is the strongylus gigas of the kidney—much more common in the dog than in man.

2. Crémátodes owe their name to the numerous pores of their surface, as they do not belong to the human species; one genus is very common in sheep—it is the hepatic distoma—which has been said to exist in man and in shepherds; but this, of course, we merely mention, without answering for the truth of the fact.

3. Cestoids or flat worms: two varieties—*tænia solium* and *T. lata*.

4. Cystids are so called from their analogy to common cysts. The cysticereus polycephalus is a cystid furnished with several small appendages called heads, and which are susceptible of being protruded from, or drawn into, the cyst; this parasite has been found in muscular substances, in the heart, in cellular tissue, in the cerebral membranes, and in the brain itself. That form of cystid which consists merely of a bladder, *Laennec* called *accephalo* cyst, and it has received also the name of *hydatid*. *Laennec*'s description was as complete as it could be at a time when microscopic studies were not cultivated; he showed how the young *hydatid* was formed on the internal



face of the parent cyst, and became, after a time, free within its cavity; how the progress of time caused the generating cyst to burst, and how the parasitic growth thus became multiplied under the influence of its own organic laws. Microscopic research has shown that this fluid contained in hydatids is replete with animalculæ, to which the name of "cœchinococcus" has been given; hydatids have only been observed in parenchymata—viz., the liver, spleen, kidney, lung, and brain.

We here close the first part of these lectures, treating of the alterations of the physical condition of our organs: we now turn to the consideration of those changes which disease induces in their dynamic state.

PART II.

Alterations of the acts of the living organism are what we understand by the alterations of the dynamic state. Life is a power—a force comparable to that which governs the world. Life directs and regulates the phenomena presented by organized bodies, some of which are, it is true, analogous to those which take place in inorganic substances, although modified by the intervention of life; whilst others are proper and special to life, being intimately connected with the arrangement of organic matter: thus all living bodies are endowed with irritability, sensibility, contractility, and plasticity. Another special property of living bodies is that of preserving their temperature; of these properties of life, some, like sensibility and contractility, can only become developed when a peculiar arrangement of organic matter is present; others, like irritability and plasticity, require simply the existence of life for their production. The regular play of these properties constitutes health; disease is the result of their disturbance. Let us establish, as a principle, that any derangement of these properties necessarily implies an alteration of organized matter. The alteration may escape detection, but doubtless it is present, and we must not wait until we have re-organized it, to study the functional change.

The most general properties of living bodies is irritability. It is by hypothesis we admit of its existence, but it is a supposition indispensable to the explanation of a certain number of facts; and we must admit it on the same grounds that in natural philosophy we allow the existence of the electric fluid. We must, however, recollect that some phenomena, which we now account for by the theory of irritability, may at a future day perhaps, receive another explanation. Thus it is by increased irritability that we have endeavoured to account for certain varieties of physiological congestion, such as that observable in the womb during gestation. Within a certain limit of time the now flourishing doctrine of irritability will probably prove insufficient, but in the present state of science we ought not, we cannot reject it. Let us, therefore, examine the deviations of irritability.

This property has been considered of such vast importance that it has been the foundation of a theory which for many years governed medical science, and was proposed by Brown, who considered all diseases as the result of increased or diminished irritability. When this property is brought into play, excitement is produced; but were it not for certain agents called stimulants, which throw irritability into action, excitement would remain in a latent state. Stimulating powers are of two orders—they may emanate from external agents, or arise within the organism itself. The former are very numerous: caloric, light, electricity, and air, for instance; air stimulates by its contact; its currents, its vibrations, by its component principles, and, also, by the elements which it may accidentally contain; and is not only a stimulant but a chemical agent, by which special modifications of the system are occasioned; food, drinks, medicines, are also stimulants, and at the same time act chemically upon the body. Three surfaces receive the impression of external stimulants, viz., the cutaneous, respiratory, and digestive

surfaces, and to these we must add the organs of special sensation; from these parts the excitement is propagated to the entire system by two channels, the blood, and the nerves; a singular phenomenon, called sympathy, also serves to convey the excitement from one part to another; and, lastly, it may be transmitted by the narrower medium of continuity of tissue. These various agents do not always produce the same degree of excitement. This difference of action may depend upon the nature of the stimulant, upon the intensity of the action, its duration, its continuity, or intermittence, and the peculiar aptitude of the affected tissues to receive it. Let us remark that this aptitude is, in many cases, subservient to habit. Thus, in a person accustomed to the use of fermented liquors, a peculiar susceptibility is created, which, if illness occur, may be betrayed by the nervous system, and by the symptoms of delirium tremens. Thus, when the use of certain stimulants has degenerated into a habit, their sudden removal is not unfrequently the cause of disturbance. On the other hand, by the total withdrawal of an habitual stimulant, a morbid susceptibility is generated, which may prevent the system from ever again returning to the use of that stimulant without inconvenience. Thus, after prolonged darkness, the eyes accustomed to obscurity become inflamed when they receive the impression of light; thus again, when abstinence has been injudiciously prolonged, during convalescence, it often is extremely difficult to make the stomach bear food without due excitement.

External stimulants may act upon the irritability diffused through the entire system, but the irregularity of repartition of the excitement between the various organs, the localization of excitement in any particular part, gives rise (as Broussais very clearly observed) to irritation. External stimulants may exercise their action upon particular organs, as may vomica on the spinal chord, cantharides on the genital and urinary apparatus, or tartar emetic upon the act of vomiting, which that medicine produces even when it has been introduced into the body without being placed in contact with the mucous membrane of the stomach.

D. MCCARTHY, D.M.P.

Dr. Guber gives the following as the microscopic constituents of fæces:—1, vegetable cellular tissue; 2, vegetable hairs; 3, vegetable spiral vessels; 4, elongated quadrilateral plates, of a light yellow colour, in great abundance, but of uncertain nature—not affected by acetic acid, insoluble in cold ether—perhaps portions of muscular fibre, displaying transverse striæ by action of iodine; 5, crystals of ammoniaco magnesian phosphates, in considerable numbers; 6, fat globules; 7, granules, abundant; 8, epithelium cells and mucous granules; 9, brown colouring matter of bile.

#### SURGICAL SOCIETY.

J. W. CUSACK, Esq., in the Chair.

Mr. Tufnell related the case of a soldier, who, nine weeks before, was seized with violent hæmoptysis after using some exertion in loading a luggage cart. Three pints of blood were discharged the first day, and on the third, a second profuse discharge took place. On the fifth day the symptoms were as follows:—violent ague, short cough, dulness under the left clavicle, and night sweats.

A few days ago there was a total cessation of expectoration for many hours, and the man complained of uneasiness in his chest, there being also considerable dyspnoea. He took an emetic in the evening, which had the twofold effect of evacuating his stomach, and getting rid of the accumulated mucus. After this he slept for three or four hours, but awoke at twelve o'clock that night with slight delirium, which, by five o'clock, became violent, and at nine o'clock in the morning he fell back and died suddenly. Mr. Tufnell had previously observed a fistulous opening beneath the right clavicle,

which led into the corresponding sterno-clavicular articulation, but, as it had existed for some time, and had merely a covering of lint dressing, he took no notice of it.

Mr. Tufnell made the dissection, expecting to find effusion into one or both cavities of the brain, after delirium of so many hours' standing, and conceiving that the cerebral disease was attributable probably to metastatic action, consequent on the suppressed bronchial secretion. But the ventricles contained nothing more than their usual exhalation; the cerebral substance generally, however, was congested, together with considerable vascularity of the arachnoid. The left lung was studded with tubercles in the first stage; the right contained a few. The heart was healthy, as also the abdominal viscera, excepting slight congestion of the liver and some thickening of the gall-bladder, which contained between its serous and mucous laminae some serous fluid.

There was an entire absence of disease in any of the cavities sufficient to account for the sudden death, and serving to strengthen Mr. Tufnell in a conjecture as to its probable cause, which had its origin in the following accidental circumstance.

During the post-mortem examination he passed a probe along the track of the fistulous opening before mentioned, and found that it entered the jugular vein. It was possible then, he thought, that the disease of the sterno-clavicular articulation may have extended to the neighbouring jugular vein, and that the latter gave way in a violent inspiratory effect during one of the paroxysms of delirium. It became a difficult question to decide, however, whether the vein was thus diseased, and had given way, or whether the opening might not have been made by the probe, and so lost its value as a means of accounting for death.

Dr. Benson asked whether delirium of this wild character has been observed by Mr. Tufnell or others to be of frequent occurrence in cases of phthisis? He had rarely experienced it himself, but an instance of it had lately occurred in a female at Baggot-street Hospital, in the advanced stage of phthisis. She laboured under extreme debility and dyspnoea, there being cavities in both lungs, copious purulent expectoration, and profuse sweating; yet, when the delirium set in, she acquired considerable strength; the sweats, expectoration, and dyspnoea ceased; the disease then assumed the character of mania, which has continued for several weeks unaltered.

Dr. Hargrave inquired whether at any time Mr. Tufnell had any reason to suppose air passed into or out of the sinus alluded to, or if he had ever observed any puffiness above the clavicle?

Mr. Tufnell: None whatever.

#### LARGE FIBRINOUS DEPOSIT IN THE RIGHT SIDE OF THE HEART. BY DR. BELLINGHAM.

A soldier, aged about 20, just returned from India, where he had had fever, was seized with acute bronchitis, for which he underwent no treatment for several days, and then came to St. Vincent's Hospital. He now laboured under extreme dyspnoea; the extremities were cold and livid, face congested, action of the heart and pulse very feeble. The only physical signs present was a sibilant râle over both sides of the chest, but no mucous râle. Notwithstanding the free use of stimulants, the man sunk and died within twenty-four hours after admission.

Autopsy.—The bronchial lining membrane, as far as it could be traced, of an intensely red colour, the membrane itself being thickened from tuberculous deposition; no mucus in the air-tubes; lungs considerably congested.

The heart was of the natural appearance and size; its right ventricle more than half filled by a firm semi-transparent mass of fibrine adhering to the carneæ columnæ and chordæ tendineæ, and partially obstructing the auriculo-ventricular orifice. The remainder of the cavity of the right ventricle and the left side of the heart were filled with ordinary post-mortem coagula.

Dr. Bellingham attributes the immediate cause of death to the fibrinous deposit in the right ventricle, which obviously had taken place before death. The majority of deaths in bronchitis are, he observed, from asphyxia, owing to the patient's



inability to get rid of the increased secretion; but here there was no increased secretion, and no other cause of death was apparent. The case, therefore, was interesting as an example of unusual termination of bronchitis. The fibrine contrasted very remarkably with the *post-mortem* coagula, also existing in the heart; besides, the fibrinous deposit was confined to the right side, the impediment to the circulation having been in the lungs.

Dr. Butcher compared the mode of deposition of these fibrinous coagula in the heart with what occurs in aneurismal sacs under cure by compression of the arteries leading to them. When by mechanical obstruction the circulation through the heart or lungs is impeded, the blood, in its passage through the former, is placed in the most favourable condition for the deposition of its fibrin; this same result being sometimes also a consequence of the remora or stasis of the blood in the right auricle from extreme depression of the powers of life, or caused by continued syncope, the deposit being then so large as to prevent the restoration of the heart's contraction. Dr. Butcher believed that in many of the cases brought to hospitals, after exposure to the greatest want and misery, with a scarcely perceptible pulse, with all the powers of life, in fact, almost extinct, these fibrinous depositions exist; yet, by a judicious administration of stimulants, recoveries are frequent. He was of opinion, then, that unless the deposit exceed a certain size, so as nearly to block up the cavity, such cases are prevented from terminating fatally by a free use of stimulants. By what process these coagula are removed he would not venture to say, but it might be supposed to be by absorption.

Dr. Brady made some lengthened observations, in which he concurred with Dr. Bellingham, that the fibrinous deposit in his case was formed previous to, and was the immediate cause of, death; such an occurrence, he said, was not unusual in fatal cases of acute general bronchitis. Four years ago he (Dr. Brady) had exhibited to the Pathological Society of this city, the heart of a young man who died of bronchitis, at the Cork-street Hospital, in the right ventricle of which was imbedded a dense white fibrinous mass, similar to that in the preparation now on the table. On that occasion he had given it as his opinion, that death had resulted from the obstruction to the circulation produced by this formation, the deposition of which had most probably commenced two days before. Here also there was an absence of any other anatomical alteration to account for death. Dr. Brady next alluded to the importance of a system of treatment calculated to sustain the vital powers in most cases of bronchitis, and referred to the fact of the occasional occurrence of these amorphous depositions of fibrine, as tending to strengthen the practitioner in such an opinion. The tendency of modern science, especially the cultivation of morbid anatomy, fruitful as it is in valuable results, had yet led in the hands of many to a more active, but much less safe, course of treatment than that pursued by the most celebrated of the older physicians.

#### MEDICAL SOCIETY OF KING'S COLLEGE, LONDON.

Jan. 14.—J. T. ARLIDGE, M.B., Hon. Member, in the Chair.

R. DRUITT, Vice-President.

Dr. Hensley recounted a case of "rheumatic inflammation of the testicle." The subject of this case was a gentleman, aged twenty; his grandfather had been subject to gout. In the early part of last summer he experienced rheumatic pains in the shoulders and other large joints; afterwards he had pain in the small joints of the foot, with œdema around them, and a red blush, looking altogether much like gout. He had also lithates in his urine. Various remedies were used, with change of air and Bath waters, and he got nearly well in September, whilst taking iodide of potassium in decoction of sarsaparilla. A month after this, he became suddenly jaundiced; and, having got wet in his feet,

he experienced a relapse of the rheumatic affection. From this attack he had, to a considerable extent, recovered, when he experienced a dull pain or sense of compression in one testicle.—On the third day afterwards, Dr. Hensley found the right testicle painful, swollen, and tender; the pain of a dull, aching, character, but coming on in paroxysms of greater intensity. There was nausea and some vomiting. The skin and conjunctiva were very yellow; urine high coloured, without sediment; slight pain in one knee. Ordered—a smart purge, six leeches, fomentations, suspensory bandage.—On the fourth day the swelling had increased, especially in the epididymis, which was exquisitely tender. Urine high coloured and depositing abundance of red lithates. Ordered—four leeches, calomel, and opium.—Fifth day. Swelling a little diminished; apply four more leeches.—On the eighth day, the swelling being considerably diminished, the testicle was surrounded with strapping; this, however, was removed by the patient, who found the pain increased by it.—On the ninth day the patient was free from pain, and for the first time perspired freely, and emitted the peculiar rheumatic odour. From this time he continued to improve, using an ointment of mercury and camphor, and resumed his usual avocations on the twenty-third day; at which time the testicle was nearly of its natural size, the other rheumatic pains gone, and the urine clear.

The principal point of interest in this case, the author remarked, is the connection of the inflammation of the testicle with rheumatism. He had found no mention, in books, of rheumatism as a cause of orchitis; the poison of syphilis and of mumps are very well known to produce it.

Mr. Wilson thought that evidence of any other connection between the disease of the testicle and the rheumatism, more than a mere coincidence, was wanting, or at least unsatisfactory, in this case. The testicle might become inflamed in a rheumatic patient, just as in any other person, without there being any relation of cause and effect to the rheumatism.

Dr. Hensley considered that the very strong evidence of the connection in question, derivable from the remarkable manner in which the affection of the testicle kept pace with the other well-known rheumatic affections present—just as a rheumatic affection in a joint is known to do—added to the negative evidence of the absence of any other cause, rendered the proof of this point very conclusive.

Mr. Pittard read a paper on "Suppuration." He first drew attention to his paper, read last year before the society, on the "Repair of Bone," the main object of which was to prove an assertion to the effect "that the form of tissue which adhesive lymph shall ultimately assume is determined by causes acting upon it subsequently to its effusion," made by him in a paper on "Adhesive Inflammation," read before the society in 1844. This assertion, which he must for the present assume as an established rule, was indispensable to him in showing what he considered to be the true nature of suppuration.

He objected to the expressions "suppurative inflammation" and "adhesive inflammation," used as contradistinguished to one another, and indicating affection specifically different. He objected to them as mis-enunciations which render fruitless any attempt to arrive at the truth whilst they are continued in use.

He also objected to the term "inflammation," which, he remarked, is a poetical metaphor in its etymology, and has not received any more definite meaning in its use. It is a figurative expression applied to those appearances which necessarily result from an increased afflux of blood to a part or organ, namely, heat, redness, and swelling; and it is, therefore, equally applicable to digestion, reparative inflammation, the production of the annual new horn of the stag, and erysipelas: processes as different from one another as any processes in living beings are, or, perhaps, can be. Pain also is usually enumerated as a cha-

racteristic of inflammation; but it is acknowledged to be sometimes absent, and it never bears any definite relation of proportion to the other characteristics. It depends, in fact, upon local circumstances, most commonly upon the unyielding nature, the non-capability of swelling, of the tissue to which the afflux of blood takes place. He therefore rejected the word inflammation as unfit for the purposes of science.

In order to designate a certain process or function, hitherto, amongst many others, called inflammation, he proposed constructing from the Latin—*sarcio*, to mend; the substantive, *sarcition*; the adjective, *sarcitive*, or *sarcitory*; the adverb, *sarcitorily*, or *sarcitively*; and, if needed, the verb, *sarcit*.

He then proceeded to describe the function of *sarcition* as follows. God has endowed living beings with various functions, for certain purposes, such as a function of generation for the continuation of their species, a function of growth and nutrition, and many others; amongst these, and distinct from any of them, is *sarcition*. He foresaw the various exigencies of his creatures, and provided for them. He foresaw that living beings would be continually receiving wounds, and he provided for the exigency so arising, by endowing their tissues with the power of *sarcition*, by giving to them the *sarcitive* function.

When a wound has been received, the process of *sarcition* sets up in the wounded part by the production and outpouring of adhesive lymph, which consists of nucleated cells of various sizes, and a fluid serum. These cells have a tendency to adhere to one another, by virtue of which they soon form a coagulum that, as it were, waits for further orders as to what form of tissue it is to assume.

In the meantime this *sarcitory* coagulum affixes itself to any raw or serous surface with which it comes in contact, whose blood-vessels soon shoot into it; and, this having occurred, it is said to have become organized. If this affixation of a *sarcitory* clot has taken place to two opposite surfaces, it, of course, has become the medium of union between them.

It waits for further orders. If it be subjected to pressure or compression, as shown in my paper of last year, it takes that as its order to become bone; if subjected to tension, it assumes the form of ligament or tendon; and if subjected to neither of these agents, it forms a peculiar tissue characterized by possessing a peculiar contractility.

These three forms of tissue or internal structure, the osseous, the fibrous, and the cicatrizing, are the only ones that the *sarcitive* coagulum can assume; but if it presents a free surface, such surface may become either mucous or serous; and which of these two it shall be depends upon the agents to which it is exposed.

Adhesive lymph or *sarcitory* cells can be effused by a serous or raw surface only, and to such surface alone can they affix themselves. When a mucous membrane is *sarcitively* excited it suffuses pus—that is to say, it suppurates. These rules both hold good with the adventitious mucous and serous surfaces respectively, which result from the metamorphosis of the free superficies of the *sarcitory* clot.

The first sign of *sarcitive* excitement in a mucous membrane is an increased secretion of mucus, which changes by imperceptible gradations to pus. The author here described the microscopic appearance of pus and of mucus, and dwelt on the very slight difference there is between them, and on the gradual transition from one to the other, which, he stated, is as observable in viewing them with the microscope as it is to the naked eye. The term mucus-purulent might be applied to some microscopic corpuscles as aptly as it is applied with reference to characters visible to the naked eye. On these grounds he concluded that pus is altered mucus. Not, indeed, that pus ever has actually been mucus, but that the same corpuscles which, in an excited mucous membrane, are thrown off as pus, would have



been mucus in case the membrane had been quiescent.

He then asserted that suppuration is, in all cases, the secretion of pus by a mucous membrane—a secretion which is proper to it when sarcastically excited. When it takes place in one of the original mucous membranes, it is not preceded by those occurrences which precede it when it takes place in situations where no original mucous membrane exists. The occurrences which precede it in such situations are the sarcitic processes, resulting in the formation of a new mucous membrane; which, being formed according to the rule before laid down, proceeds to secrete pus.

In seeking, therefore, for the cause of suppuration in other situations than in mucous membranes, it is only necessary to seek for those agents which determine the free surface of a sarcitory coagulum to assume the form of mucous membrane. The agents which, as before stated, determine the coagulum to assume the form of bone and tendon are such as are usually present in situations where those tissues are needed; the agents which determine the surface to become mucous are such as mucous membrane is usually exposed to, and is adapted to receive. Of these he particularized the contact of air, and of all dead solids, of saliva, urine, and, probably, all the other secretions, and of pus itself; whilst, on the other hand, Canada balsam, Venice turpentine, and water, prevent the metamorphosis in question, and preserve to the organized clot a serous surface capable of pouring out fresh adhesive lymph: these latter, therefore, are extremely useful applications to wounds, as favouring the sarcitory process.

The remainder of his paper was occupied in glancing at cases of suppuration of common occurrence, and showing how the agent, which his theory makes necessary in the production of that process, is, or may be presumed to be, present in such cases. Thus, when a cut is exposed to air; in the admission of air into the pleura in pleurisy; in the lodgment of solid foreign bodies in the tissues; in the deposit of pus, which has accidentally burst into the current of the blood in the lungs, liver, &c.; in death of bone; in the gangrene of portions of the soft tissues from the pressure of effusion, &c.

The process of granulation, he asserted, is the filling up of a wound by growth taking place beneath the adventitious mucous surface.

The secretion of pus continues to take place from an adventitious mucous surface only so long as it continues in a state of sarcitic excitement; when that action ceases, is gradually substituted by mucus.

The pyogenic membrane of Delpech and others, and the glandular arrangement of which pus is the secretion, of Hunter, from the adventitious mucous membrane of sarcition of the author.

Finally, he remarked that sarcition, or inflammation used in that sense, is a healthy function or process; its aberration only is a disease.

Mr. Griffith, in moving a vote of thanks to the author, eulogised the present paper as one of an able series, read year after year before the society, on the important subject of reparative inflammation.

Mr. Smith did not see how the author's theory would account for those large collections of pus which so rapidly form beneath the skin, and bury amongst the muscles, in erysipelas; he could not conceive a new mucous membrane to surround all these collections, though it is very easy to conceive it in the case of chronic abscesses.

The Author replied, that erysipelas, though called an inflammation, is not the process of which he had been speaking—it is not sarcition; nor is the so-called pus, found in such cases, really pus, but dead cellular tissue and serum. The sarcitic process sets in, in such cases subsequently to the occurrence of the sloughing, in order to repair the breach caused thereby; after which true pus is formed.

Mr. Druitt had not heard the whole of Mr.

Pittard's paper. He considered the theory which he had put forth well deserving of attention, but, judging from what he had heard, he had not established it with that demonstration which he should have wished to see. He thought that the objection started by Mr. Smith is really no objection; the so-called pus in erysipelas, he could state, is dead cellular tissue and serum. He would ask the author if he could bring forward any proof that granulations grow by additions beneath, not upon, their surface.

The Author replied that he could not bring forward any very demonstrative proof. The presumptive evidence which led him to that conclusion would take a very long time to bring forward, as it involved a description of the whole process of sarcition.

Dr. Arlidge, Dr. Duncan, and Mr. Rhodes, also joined in the discussion.

## REVIEWS.

*The Pathological Anatomy of the Human Body.*

By JULIUS VOGEL, M.D. Translated from the German; with Additions, by George E. DAY, M.D. 8vo., pp., 587. London: H. Baillière. 1847.

The precision which medicine has of late years acquired in its departments of *diagnosis* and *treatment*, it mainly owes to pathology. By this term *pathology* we understand that knowledge of the morbid functions of organs which we have scientifically reached by an acquaintance with their morbid conditions. However it may lie between the exclusive symptomatologist, on the one hand, to doubt that an error of function is necessarily connected with an error of structure; and the exclusive pathologist, on the other, to aver that these two stand together as effect and cause: however these things may be, true enough is it that we rarely find function much disturbed without finding also an organic account of it. The advances lately made by minute pathology have done much to provide us with conclusive information on these most important points of medical doctrine; we feel that the ground is good thus far, the only other feeling is, that we want this *exact ground* extending. The symptomatologist has yet many claims upon us which we cannot deny; he can often take us to the bedside, and show us ailments which we cannot even conjecture the cause of; and he will prescribe for the symptoms of those ailments, and the sufferer will recover, and all in the absence of pathology, properly so called! These are the things that constitute the yet glorious uncertainty of physic. It may happen that the symptomatologist has many a recess which morbid anatomy will fail to illumine, and that the *questio vexata* of error of structure and error of function will stand undecided for ever. But it also may happen that our approximation to the obscure truth may have been hitherto retarded by the imperfect means we have employed to reach it. It may happen that, as we become better skilled in the art and science of observation, many of the secrets of nature now hidden from us will be revealed to our more acute and intelligent senses. It may happen, also, that as these senses have been thus far aided by artificial means, the progress of discovery will yet increase that aid, and that the obligation we now owe to the microscope is trivial compared to what we shall owe to it when its powers, and the application of them, shall be more amply at our service. To this inestimable end, *observation*, and the record thereof, will be the surest contributors. In this great field of enlightenment all we want are facts; these lead to one another—to large truths—to laws! Experience and research are our only guide to them. We owe much to the industrious few, who, with unyielding patience and perseverance, work out for us these invaluable problems of nature; who throw here and there a ray of light where only darkness had aforetime existed. This process of enlightenment is necessarily slow, and is perhaps, therefore, the surer. It is only by degrees that knowledge finds its way to those who need it.

It is under this feeling that we welcome, right heartily, every contribution to our store of patho-

logical knowledge. With extra earnestness do we welcome such offerings as come amply commended in their very self-evidence of minuteness and accuracy. Of such character is the work before us. It is clearly the production of a mind comprehensive enough for generalities, yet cautious enough to stop for the trifles which are the germ of all sound generalization. We have here a vast *body of facts*, constituting the embodiment of *pathological laws*. These are the grand truths we want, to give something like exactitude to our profession. It will become exact in proportion as fundamental truths like these are placed before us.

The present volume of Professor Vogel is indebted for its English dress, and for certain annotations of much value, to Dr. Day, the accomplished translator and editor of the "Simon's Chemistry," as published by the Sydenham Society. The profound literary attainments of Dr. Day, and his yet profounder skill as a chemico-pathologist and a practical physician, eminently qualify him for translating and annotating a work like the present; and we can only say that the manner in which he has executed his task reflects the highest credit upon him. It is, in truth, a masterly performance.

The work itself deserves much praise. It embraces a very wide field of *general morbid anatomy*, and is therefore, as it purports to be, a prelude to other contributions to special morbid anatomy, or that of organs. The subjects in the present volume are chiefly comprehended in the divisions of—*pneumatoses*, or abnormal development of gaseous matters; dropsies, abnormal collections of aqueous fluids; pathological relations of the blood; pathological epigeneses, in their general relations; special relations of the same; pathological physical changes of the body; combinations of morbid elementary changes; independent organisms of the human body; malformations; *post-mortem* changes.

These general groupings have subdivisions, which are treated of amply, and with much lucidness. The subjects are not novel for investigation, and therefore cannot be expected to be treated of with unvarying freshness. Still the author reveals to us many facts which we meet with for the first time; and they look so like truths that they claim our best regard. The most celebrated article, and the best, is "The Pathological Epigeneses." We have not now space to devote to it, but shall consider it in our next number.

NAVAL APPOINTMENTS.—Surgeons: T. Fraser, to the Crocodile; E. J. Sinclair, M.D., to be agent at sick quarters, Wick, N. B.; J. S. Davidson, to the Penelope; W. Crofter, to the Penelope; S. C. Urquhart, M.D., to the Penelope, for service on the coast of Africa; W. T. Alexander, to the Dee; H. O'Hagan, M.D., to the detachment of Royal Marines at Port Essington.—Assistant-Surgeons: N. Barrie, to the Ceylon; W. L. Gordon, to the Caledonia, for service of Plymouth Hospital; N. B. Alexander, to the Ceylon; W. B. C. Christy and E. W. Pritchard, to the Collingwood; A. Elliott, M.D., to the Marine Infirmary, Portsmouth; A. Little, M.D., to the Terrible; W. L. Gordon, to the Plymouth Hospital; H. French, to the Caledonia; J. Lilburn and R. Mingle, to the Victory; W. Thomas, D. L. Morgan, F. C. Sibbald, W. H. Clark, and M. Walling, to the Penelope, for service on the coast of Africa; G. Ayling, to the Avon; G. Everest to the Victory; W. Dunbar, to the St. Vincent; F. J. Whipple, to the Ocean; S. Bowden, to the Shy; P. Degan, to the Carysfort; F. F. Morgan, to the Kingfisher; J. A. R. Harvey, M.D., to the Melampus; S. M. C. Steele, to the Racehorse; R. Wallace, M.D., to the Vengeance; F. J. Brown, to the Hasler Hospital; F. F. Purchas, to the Caledonia, for service of Plymouth Hospital; F. Mangar, to the Victory; C. H. Morrison, to the Constance; W. F. Kay, to the Plymouth division of Royal Marines; W. Bainbridge, to the Acheron.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, Feb. 5: R. A. W. Westley; J. K. Baines; W. S. Briggs; E. Govett; J. L. Palmer; J. Harward; M. Morris; C. Downes.



WAR-OFFICE, Jan. 29.—55th Foot—Assistant-Surgeon Henry Clinton Foss, from 31st Foot, to be Assistant-Surgeon, vice Smith, appointed to the Staff.—60th Foot—Assistant-Surgeon Edmund Edward Hare O'Brien, M.D., from the Ceylon Rifle Regiment, to be Assistant-Surgeon, vice Docker, appointed to the 2nd Foot.—94th Foot—Assistant-Surgeon William Westall, M.D., from the Staff, to be Assistant-Surgeon, vice Turnbull, deceased.—Ceylon Rifle Regiment—Assistant-Surgeon John Newton, from the Staff, to be Surgeon; Assistant-Surgeon Fenwick Martin Tweddell, from the Staff, to be Assistant-Surgeon; John Rambaut, gentleman, to be Assistant-Surgeon, vice O'Brien, appointed to the 60th Foot.—Hospital Staff—Assistant Surgeon John Stewart Smith, M.D., from the 55th Foot, to be Assistant-Surgeon to the Forces, vice Westall, appointed to the 94th Foot.

#### TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Curfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

D. H. G. W. shall have an answer to his inquiries next week.

J. M., Aberdeen.—We can recommend the institution to which our correspondant refers.

Mr. Richardson.—We are so inundated with unsolicited communications on the effects of vapour of ether, that we cannot accede to the proposal.

W. C. J.—Our correspondent is certainly admissible as a member of the National Institute; but what the intentions of that body, if successful, may be, we are unable to state.

Un Jeune Anatomiste.—If he will let us know exactly what he wants, we will give him the desired explanation.

Mr. Blick.—We have often seen and received letters from H. W., Dewhurst. We know nothing of the "Farmer's Catechism," or any of the other works of Mr. Dewhurst, or the authenticity of the long list of titles which he appends to his name.

Junius.—We think that his employer should pay him for the time during which he has been his assistant, according to the salary agreed upon between them. With regard to travelling expenses the case is doubtful; but, if the employer be a generous man, he will certainly not refuse to bear some portion of the expenses.

D. F.—The cost of Robinson's apparatus is about two guineas; that of Mr. Startin one pound ten and two guineas. We are not aware of the cost of other forms of apparatus.

A Young Practitioner.—The compositions for stopping decayed teeth are almost as numerous as the dentists themselves. We have found the amalgam of silver very useful for filling molar teeth, but its black colour prevents its use for the incisors. It is easily made by filing a silver coin, obtaining sufficient filings, placing them in the palm of the hand, and kneading them with a small globule of mercury until a soft paste is formed, which may be introduced into the cavity of the tooth, after having well wiped it with a piece of lint attached to the extremity of a probe. It hardens in a very short time, and will not readily drop out.

## THE MEDICAL TIMES.

SATURDAY, FEBRUARY 13, 1847.

"The attack on the Coroner, being circulated in such a journal as the MEDICAL TIMES, naturally produced a strong sensation and general excitement."—UNANIMOUS JUDGMENT OF THE QUEEN'S BENCH, DELIVERED BY LORD DENMAN.

"I CANNOT DISGUISE from the Court that the continued exercise of Mr. Wakley's functions as Coroner depends on the granting of this rule."—SPEECH OF THE ATTORNEY-GENERAL FOR THE CORONER OF WEST MIDDLESEX.

THE "Judgment" of the Court of Queen's Bench on the Hounslow Inquest has points of interest far above anything of a merely personal character, for henceforth it will stand a part and parcel of the law of England, and so form the great protection of the Medical Profession, alike from the silly blunders or daring injustices, or adroit prestidigitations, of all foolish, or unprincipled, or designing magistrates.

The judges, in their written and very deliberate judgment, take great pains to show that, in our words, the lives and liberties of Colonel Whyte and Dr. Warren were dependent on the course and conduct of the inquest. "Against the commanding officers," says his lordship, "there might be a charge of murder against them, if the sentence under which the flogging had been inflicted was unwarranted; or, if warranted, and accompanied by wanton or cruel prolongation of suffering, it might involve a charge of manslaughter, not only against the officers who directed the punishment, but against the medical officers who were present and witnessed it."

The court is thus emphatic in explaining the perilous character of the inquiry; but so full are the judges of this important fact, that they go on further, thus:—

"Some of these medical officers were necessarily present, for fear of any danger arising to threaten the life of the party flogged; and the inquiry was of considerable importance to them. It was further of importance to them, because, as the soldier had been in the hospital after the flogging, it was not wholly improbable that he might have fallen a victim to unskilful medical treatment."

Well might the judges, with these contingencies before them, say that the duties of the coroner were often as important as those of the superior judges. Let us now see how, according to the same high authorities, these heavy responsibilities were discharged.

First: the law was violated. The judges tell us—the law itself, in so many words, tells us—the coroner had no right to issue a warrant to Mr. Day till he had examined Dr. Hall and Dr. Warren. He was guilty of a misdemeanour in doing so.

Now, is it to be doubted that the violation of the law here placed Dr. Warren and Colonel Whyte in a position of considerable jeopardy? Did it not raise against them a popular feeling strong as that which carried Governor Wall to the scaffold? Did it not—keeping back, as it did keep back, important evidence—did it not multiply the chance of inculpation and promote against them a partisan spirit, in a jury already sufficiently hostile? Who can say what might have happened had Mr. Day, instead of being an honourable and high-principled practitioner, allowed himself to be seduced by the lust of public applause, and had lent himself to the delusion of the day?

We have a right, then, here to tell coroners that the law will not (to the sacrifice of medical witnesses of character) tolerate their violations of positive and well-known statutes, and that if they do venture on such violations, especially to the imperilling of innocent men, they may expect to be called to a strict account and heavy condemnation.

But the judges teach medical practitioners another lesson for their safety. Coroners, once selecting a medical witness, may not get rid of him, if he threatens to be inconvenient, without first hearing his full testimony. Mr. Day, having been chosen, was postponed till Wilson's evidence could be procured by a violation of the law. Here again the coroner, by his treatment of Mr. Day, was guilty of a misdemeanour.

The judges do not stop here. They establish another principle for the protection of accused medical men, and of ill-treated medical witnesses. They tell us, that if a coroner, having a medical man on trial, is not content with the opinions of four or five medical men, clearly exonerating the accused from blame, he may not nominate for a further, *post-mortem* examination, for the purpose of resisting such evidence, "an intimate friend and former associate of his own."

"THE COURT COULD NOT HESITATE TO CONDEMN THIS NOMINATION. The coroner, having placed himself in opposition to the other medical men in the view which he took of the cause of death, ought to have been peculiarly careful to nominate a medical man of known skill and science, and altogether free from bias, or supposed bias, of intimacy and similarity of opinion with himself."

This important principle being laid down as necessary, in common justice, for the guidance of all future inquests, the judges proceed to vindicate another impugned right of the medical profession. Dr. Warren, Dr. Hall, and Dr. Reid, having made a *post-mortem* examination, and their character and interests depending on the accuracy of their report of its nature, the coroner, if he require a subsequent *post-mortem* examination, is bound, in common honesty, not to exclude from it those who had made the first. So say the judges unanimously. The coroner, therefore, erred in leaving the characters of Drs. Hall, Reid, and Warren, at the mercy of his "former associate's" *post-mortem* researches.

But we have not done with the privilege secured to us by this Palladium of rights to medical witnesses. Is a medical man on his trial before a coroner's jury for conduct in the discharge of his professional duties? Are medical men at the bar of public opinion for their repute as professional witnesses? The coroner, then, must not follow the model of the Hounslow inquest, but, on the contrary, must set his face against any jury-remarks "foreign to their functions and incompatible with the sober discharge of their duties"; he must not attend agitating meetings, and criticise in a libelling strain the conduct of "the persons who have appeared before him either as witnesses or as accused": he must not lend his direct aid and sanction to proceedings intended at least (if they go no further through adverse



circumstances) to give him a "*pecuniary testimonial*" for his conduct as a judge: he must, finally, not "let his zeal affect his conduct in the inquiry, and give rise to the reflection that he was eager to find proofs and pretences for the jury to censure the conduct which he himself condemned."

### QUACKERY.

"A wise physician, skill'd our wounds to heal,  
Is more than armies to the public weal."

INDEED we should think he was! Our notion heartily inclines to the wise Homeric sentiment, uttered hundreds of years ago, and politely "rendered into English," as above, by the least polite of men—Pope! We confess to have little of the matter-of-fact Mars in our nature—that very Mars which shows itself in a disposition to quarrel with everybody, and everything, just, as it were, for the love of it. We have really no love of such like, and willingly leave the enjoyment of it to those who have a passion for mischief, for its own sake, or for the results of it. There are, *bona fide*, such souls as those comprehended in the above sentence—unmistakable living entities, who glory in a dash of devilry for the very fame of the thing, or who slyly promote the aforesaid for the profit thereof.

A disquisition like this may seem to be idle to those of our more serious readers, who sit over our leader columns on a Saturday morning, hungry and openmouthed, as they do over their breakfasts, and expect to be served in a genuine table fashion, with *something* nicely cooked, and racy, and savoury, and tempting, and easily digestible withal. Expectations like these are moderate enough for those who are not constantly called upon to meet them; for such happy folks have little idea of what intellectual cookery is, and the fashionable way of periodically serving it up. They read a leader, and perhaps like it—and that is all. They read another, and condemn it—and, once again, that is all. They think little of the trouble of these things, and only speak of them according as they are pleased thereby; just as if the fabricator of these thoughts, dovetailed together by sentences, were an automaton, that was regularly expected to do its work with accuracy and order, and, if it failed therein, only wanted to be oiled, to make it go as well as ever it was wont to do at the best. This may be very well for wood and iron work, but it does not apply to that variable machine, humanity, that is constantly being tempest-tossed on the thousand difficulties that beset its daily voyage! Headaches, heartaches, anxieties, dyspepsias, and endless of such things, fetter the brain, and cripple its efforts, even when best intended. Let the happy man who has no idea of troubles like these, place himself in the way of them, and then, as the saying goes, "see how he likes them." Let him run the risk of a furred tongue, and a fevered brow, and a heart beating beyond its nature, and let him, under a load of such things, try to rise above the solemnities of a saddening prose, and, in the language of the aforesaid proverb—"see how he likes it." We opine, unless he had a love of martyrdom, for its own sake, he

would not like it at all; and not only would be right glad himself to be exempt from such thralldom, but would be sorry enough for any sufferer who might chance to be its victim. We should uncommonly like any adventurer, who may imagine an editor's life easy, just to dip into the depths of it, and try what those soundings are—we should like any one, critical of editorial columns, to wield our pen for "a little month," and try to mend it! He would have the best idea he ever had, after even this short practice, of the real meaning of "killing no murder," and "taxation no tyranny." Thus much for any sapient somebody who may feel disposed, Rhadamanthus-like, to holloa! us with his critical inquiry of "What are you after?" But, once for all, we must object to be turned upon by the querist, who may politely inquire what we are especially driving at? At *something*, he may be sure, or we should not be quill-driving at all; and to stop a man, however courteously, in such a task as this, is about as complimentary as to ring a poor wretch out of a pleasant dream, and invite his head out of the window, whilst you politely apologize for troubling him to tell you the nearest road to an unknown somewhere.

The grave sentence upon which all this has hinged, and for which all this is intended to be an apology, is that preliminary one which spoke of two classes of people—those who are mischievous for the very fun of it, and those other who play such pranks for the pay they may bring.

With the former of these we have nothing to do. We quietly leave them to historians to deal with as they may best fancy. They properly come within the historical circle that is expected to catalogue matters; both large and small, not so much for the sake of themselves as for the sake of the year, or the particular day of the month thereof, when these said matters occurred. "First come first served" is a great principle with the historian; hence you may see the beginning of one of his chapters dignified with a dirty snowball assault upon majesty by some shoeless boy, and the end of the same constituted of a summing up of some "glorious victory," in which thousands had to be sacrificed to the god of slaughter, to prove that the few who escaped his greediness were glorious fellows! Such are the things of which martial heroism is made up; such are the feats in which those shine who love mischief, as we have said, for its own sake; and all such things we gladly leave to the historian, whose business it is to chronicle things both great and small.

In speaking of the opposite class—those who deal in mischief for the profit of it—we fear we are encountering a very formidable set of foes. Formidable not only from their number, but for the patronage which they command amongst all classes and conditions of men. This is a tragic leaf which might really be made the title-page to a tragic volume. No matter! we will tell the tale of shame from day to day, and see whether those at whom it points will repent themselves of their folly, and eschew it for ever. We are pointing, as will easily be understood, at

quackery, in one of the many forms in which it infests this country. Poor old England seems to be a regular *dépôt* for all kinds of continental charlatany that may choose to emigrate for a time and fix its "*appropriation claws*" on these most hospitable and dupeable shores. Whether it is that we really are more wanting in sense (*sharpness?*) or really possess more of the milk of human kindness than other nations, does not seem very certain; but at least we are sure of this, that, though intentional deception does not seem to be a component of the veritable John Bull, yet he is (perhaps for this reason) the most easily deceived creature living. Only tell him a broad-faced, bare-faced lie, that pulls upon his generosity, and he will believe it in the blindest manner imaginable. You may work upon his feelings and his fob at the same moment, and so mysteriously that each will run over at once, as though one source of exhaustion were not enough at a time. Bless his honest old heart, in a prodigality of good nature, he gets quite beside himself, and will roll treasures at the feet of the Tom Thumbs, or Tom Fools, that *hurra* him with novelties. One great fault, however, of the said John, is his love for novelties that have something outlandish about them. Only let some adventurer come before him, well be-whiskered, and with an unpronounceable name, like a sneeze, and forthwith John thinks him a prodigy, and will pay him anything asked. From playing the fiddle, through all the intermediate stages, to playing the fool, we find room enough for the occupation of such Othellos as these. If they never played anything worse than such things it would little matter to us, who profess not to come within the list of national dupes; but they sometimes go further, and *play the mischief*; with which certainly we have legitimately a dealing. To tell the extent of this mischief, in the varied acceptations of it, would be no easy task, and certainly not one, to be performed at once—enough that we take it from time to time—and now for essay the first.

"I am sorry to see you walk so lame," says Lady Somebody, to another Lady Somebody, as the two *distinguées* meet in a lounging place. "Your old enemy the gout, eh?" says Lord This to Lord That, as this brace of lordships come together, in the "house," or somewhere else. These are types of ten thousand such questions, infinitely varied, that are passed in every grade of society where the vulgar commodity, *yelept corns*, is prevalent. The secret is generally hidden, and the real fault laid upon one disease or another, according to the aristocracy of the individuals suffering. Corns are such horrid things—things in which the commonest people can bear you company—that the patrician of our country are really afraid of being found to have them. This is one of the points in which John Bull is ashamed of himself. Perhaps not the real, unmistakeable John, but one of those tinsel *attachés*, risen from the ranks, who not only forgets the source whence he sprung, but even the healthy savour of it. He is above the common herd (of which perhaps his father made one), and therefore above the common ailments of it—at least, if he have these, he does not profess them



in ordinary. He will walk lame, when the shoe pinches, and ostentatiously send for his family physician to treat him for the gout; all this he will, like a martyr, lay up for, and cover himself with flannels, and make all kinds of fuss, and issue little domestic bulletins, and cause little family and friendly anxieties—and all for nothing! And why for nothing? Because he has got a *corn*, perhaps a *couple*, which he would not have his physician know of for the world—such plebeian things!—and the pain gives him an opportunity of a rest and a holiday, and he can quietly repose, deceiving Dr. So-and-so, until the foot shall be ready to be operated upon by Mr. Such-a-one, *with such a name, and nose, and beard*—a celebrated chiropodist! Of course, he does not mind telling to *this man*, in whose integrity he has far more confidence than in that of the physician who has attended himself and his family for years, the petty ailment of one of his *pettitoes*; and, without any knowledge of his cutting or curing skill, wilfully commits himself into the said chiropodist's hands, perfectly easy as to the manner in which he will touch his corns or his pocket. So it is with certain lady fashionables, who, for similar reasons of personal and other false delicacy, court quackery in its most contemptible forms. And not only will they do thus much, but do not hesitate to inscribe their names full length, in their boldest calligraphy, in testimony to the skill of the quack who has duped them. They will talk modestly enough of their family physician or surgeon, and hesitate to recommend either to their select acquaintance; but *Mons. This* or *Herr That*, with the grin and guttural, or shrug and nasal, they will commend in ecstasies! Only let him look as un-English as possible, and gabble a *patois* no Crichton could comprehend, and charge heavily enough, and he will have plenty of *customers* amongst those whose boast it is to keep themselves *select*. We only wish they really were so; then their foolery would not be catching. But, with their talk and testimonials, they contrive to spread the mischief beyond their own circle, to which it ought properly to belong. All sorts of fashionmongers imitate their folly, and make up their company. In this way it is that the class we spoke of contrive to do mischief for the gain of it, as we shall show in another article.

#### THE NATIONAL INSTITUTE.

AMONG many announcements of no interest in Saturday's *Court Circular* is one of undoubted interest—the announcement that a deputation from the National Association, consisting of the president, secretary, and three other gentlemen, had an interview with Sir George Grey.

Sir George Grey has now, therefore, heard the physicians, surgeons, and, finally, the general practitioners. If he has not learnt the truths of medical reform he has, at all events, been taught its difficulties. Sir James Graham, with all his intellect, knew remarkably well the rocks ahead much like the Irish pilot—viz., when he had steered his vessel fairly on them: Sir George Grey will know them by an earlier and, therefore, more fortunate teaching, and by the shipwreck of others avoid that of himself.

The general practitioners of England have much to rejoice at in the circumstances of this deputation. It is something that they have their claims and grievances placed before Government with all the efficiency of matured ability, and all the respectability of what amounts to *official* influence. It is in such a contingency as the one before us that we see vividly the uses of such an organization as that of the National Institute. That—as yet unchartered—incorporation was not founded for small or every-day utilities. Its duty is not to be ever fuming and fussing like a parish nobody, and blowing up trifles into matters of moment, to justify a ridiculous activity. Your “ginger-pop” politicians, ever ready to “fizz” out in watery excitement and empty bustle, are well enough, if their object be innocent amusement, or the killing of some burdensome time; but are no models to follow, or authorities to bow down to, where great and sensible objects are actually in question. The National Institute is not a plaything for a profession's amusement—but a formidable agency to be used on occasion akin to its importance, and then with carefulness and wisdom. After the two deputations of the Surgical Fellows and the Medical Fellows, an interview with Sir George Grey unquestionably presented one of these occasions. Well was it that the profession could use the opportunity. Well was it that they could use it through the instrumentality of an organized body, which to the power of numbers added the influence and respectability of responsible official position.

We are breaking no confidence when we assert, that on one point there now remains, after the interview, no doubt:—the impossibility of passing any Medical Reform Bill during the present session. All labours on our part, all attempts on that of others in that direction, will be worse than futile—delusive and delusory.

There is hence, however, no reason why we should remain idle. The incorporation of the body of general practitioners, and all surgeons and physicians wishing to join their ranks, offers so many advantages to the profession, and presents itself in so irresistible an aspect to a gentleman so fair, so able, so thoroughly well-intentioned as Sir George Grey, that we cannot suppose that it will be refused if warmly and unanimously sought after. We entreat, then, to this point, the serious deliberation of every medical man. If they agree with us, that an incorporation, while atoning in part for a great corporate wrong, can do no professional man injury, will do many great service, and will aid vastly the progress of our science, let them not hesitate to memorialise Sir George Grey individually, or through district meetings, for the concession of the boon.

#### SANITARY IMPROVEMENT.

\* In nature there is a perpetual struggle, an uninterrupted rotation. The powers of formation and destruction operate alternately, whence nature is always dead and regenerate. The human mind, viewing this last phenomenon in its most extensive and, at the same time, most satisfactory sense, calls eternity a state of ceaseless variation by the name of NATURE.”—PRIEST.

It is extremely probable that many of our readers will not at once perceive the connection

which really subsists between sanitary improvement and the extract from one of the works of a celebrated German naturalist, which is placed at the head of this article. The connection, although not *apparent*, is nevertheless *real*, as we hope to show long before the conclusion of what we are now inditing.

To understand the connection of which we have spoken, it is necessary to take a general view of the arrangements or laws by which, in the midst of ceaseless motion, we find equally ceaseless stability. A well-educated and philosophic mind, possessing the requisite amount of information on the general system of nature, will be able to appreciate both the eternal motion and the eternal stability. He will go further, and unravel the results dependent on different laws, and understand the mutual co-operation which is universal in nature.

So far as the universe extends, so far motion extends: all matter is under the influence of this force. The brute stones and rocks—all inorganic matter, vegetables and animals—are in constant state of formation and decay. Changes of place, of form, and of composition, are continually occurring, and without these changes our world would be a dead, inert, lifeless mass. We can easily see these changes if we seek for them with an observant eye. We can trace many of them, and show their causes and their object; but there are others which are still mysterious in their character, and, although indicated to us, we cannot as yet fathom their causes or fully appreciate their consequences. While on this subject we cannot withhold a short quotation from one of the ablest works on the “Study of Natural Philosophy,” written by, perhaps, the first of English philosophers now living—Sir J. Herschel. Speaking of the creation, he says:—“He” (man) “approves and feels the highest admiration of the harmony of its parts, the skill and efficiency of its contrivances. Some of these, which he can best trace and understand, he attempts to imitate, and finds that to a certain extent, though rudely and imperfectly, he can succeed; in others, that, although he can comprehend the nature of the contrivance, he is totally destitute of all means of imitation; while in others, again, and those evidently the most important, though he sees the effect produced, yet the means by which it is done are alike beyond his knowledge and control.” The investigation of causes has thus, on the authority of one of our ablest philosophers, been shown to be of the highest importance, not only to our intellectual advancement, but to our practical and every-day convenience.

Reverting to the ceaseless motion in particular objects, unaccompanied by *change* in Nature, the alterations going on with constancy at the surface of the earth may be shown to be consistent with her eternal, immutable laws.

We can trace motion and change, formation and destruction, throughout the whole of the materials of the earth and the beings inhabiting it. The rocks and stones, which appear of all other portions of the crust of the earth the most immutable, are subjected to the disintegrating action of air and water, of cold and heat, and



are gradually worn away and carried from the tops of the highest mountains to the valleys beneath, where, in a pulverulent state, they form a portion of the fertile soil. All geological phenomena testify to the changes constantly taking place on a large scale at the surface of our globe. These are simply changes of state or of composition. The case is different when we arrive among organized beings, and here we have death followed by positive destruction. Vegetables, of more simple constitution than animals, spring up, increase for a certain time, produce their seeds, and die. Having lost their vital principle, and being of a more complex composition than inorganic substances, they, by the action of air and water, of heat and cold, are revolved into more simple combinations, and thus give rise to a multiplicity of products, the chief of which are carbonic acid and water. From circumstances which we cannot now stop to explain, other less defined and more subtle principles are evolved during the decomposition of vegetable matters, which exercise a most potent agency on the human body. *Malaria*, or marsh miasmata—which gives rise to so many and fatal diseases—is one of the results of the slow decomposition of dead vegetable matters. The investigation of the phenomena under which miasmata are generated has pointed out the means of their removal. Experience has shown that the drainage of marshes, by preventing decomposition, prevents also the production of these pestiferous emanations. Many thousand cases of ague formerly occurred every year in London, arising from the miasmata of marshes on the Surrey side of the Thames. These marshes have long been thoroughly drained, are now covered by the habitations of men, and ague has become a rare disease in London! The same may be said of the fens of Lincolnshire: comparative salubrity and fertility having been attained by drainage.

The coexistence of continued *variation* with the *stability*, of which we have spoken, is most strikingly exemplified in animals. If we take man as the highest and best representative of animated nature, we shall easily demonstrate our position, since we can appeal to each man's personal experience. Every man believes himself—knows himself—to be the same individual he was ten years before; he is intuitively conscious of his personal identity, and yet, although he has remained the same *man*, how many and great changes have been accomplished in his body during that period. Every particle of his body has undergone repeated changes—changes so great as to render it highly probable that not one particle of the matter which at the former time constituted a part of his body now exists in his organism. Here we have stability as concerns *himself*; ceaseless mutability as regards his organism.

During the whole period of life these changes proceed with greater or less velocity: in early childhood, the body increases in bulk; in mature age, it attains an equilibrium; at the approach of the termination of life, a contrary action takes place, and the weight usually diminishes. Other and important changes ac-

company these conditions, to which it is not necessary now to allude.

All the actions of the body give rise to change which renders certain portions incapable of vital action, and, therefore, useless to the organism. These particles, according to a universal physiological law, must be excreted from the system; and, as there is a constant loss, new matter must of necessity be supplied in the shape of food. Food must therefore supply the waste which is every moment occurring.

The effete matter is excreted by organs framed for that especial purpose. The retention of these substances in the body gives rise to a long train of evils which are familiar to the medical practitioner. Let the evolution of carbonic acid from the lungs, of urea and other nitrogenized matters from the kidneys, of faecal matters from the alimentary canal, be obstructed for a certain period, and death ensues. Complete obstruction, such as we have described, is not, however, necessary to produce death. If, under any circumstances, partial obstruction to the excretion of these matters be induced, the fatal result will follow, but after a more lengthened period.

Hence we may naturally infer that these effete matters are really poisonous when retained in the system; and it is well known that when again taken in the place of food, by persons in a state of starvation, they are incapable of supporting life, and prove positively noxious to the system. The air which has once served for respiration cannot be inhaled a second time, because loaded with one of these excretions—carbonic acid—which is an actual poison, independently of the abstraction of oxygen.

The nitrogenized matters escaping in the form of faeces and urine have the ordinary constitution of animal matter: they, like the substance of the body, undergo rapid change under favourable circumstances, and yield gaseous products in their effects analogous to the miasmata produced by the decomposition of vegetable matter. The vegetable miasmata produce intermittent and remittent—the animal emanations, continued and typhoid—fevers. The evidence on this point is conclusive. Whenever animal matters accumulate in large quantities, and undergo the putrefactive fermentation, and the resulting gaseous matters are not allowed to diffuse themselves in the surrounding atmosphere, and thus become too much diluted to cause serious mischief, then will contagious fevers be produced—then will misery, disease, death, become the general avengers of the infraction of physiological laws. Is it not, then, the duty of *all* to combine in removing these sources of wretchedness? Have we not an all-powerful appeal to the common feelings of humanity? Do we not dread pain, disease, death, ourselves? Why, then, not exert our common and rational sympathy to the utmost for the benefit of our fellow-men? We are sure that this question cannot now long remain unsettled. A loud, long, and continued appeal must and will be made to the Legislature, to preserve not merely the property, but the lives, of the beings committed to its paternal charge;

and this appeal cannot be made in vain. Circumstances of a pressing nature may delay, but cannot absolve, the Government from a due and careful consideration of sanitary improvement.

Tracing, as we have done, the necessity of removal of effete matters, not only from the body, but its immediate vicinity, from universal laws, we have demonstrated, we believe, the connection we promised to exhibit between those axioms and sanitary measures. Interested, as all our readers must be, in that which concerns the health of all classes of the community, but more especially of the poor, we imagine that they will not think that we have laboured in vain in bringing such matters prominently before them. We shall again and again advert to this important subject. In our next article we shall analyse the questions published by the Health of Towns Association, and show how these are connected with the general laws now enumerated.

#### ANOTHER WAKLEY ATTEMPT TO SILENCE THE PUBLIC PRESS.

AGAIN—ay, even again—has poor Wakley's "character been placed under the care of the law." This honourable coroner, after numerous postponements and delays, has brought to trial, this day (Thursday, Feb., 1847), a cause of action originating in June, 1845! June, 1845! Our readers will remember that we then published a report of the Wakley action for the celebrated letter of "Vindicator," and, of course, published the author's part of the judicial proceedings. For that publication of the letter in such report of the judicial proceedings an action was brought in June, 1845, and was abandoned a month or two later, as if conscious of the contemptible character of the procedure. In December a new action was commenced for the same thing, with the addition of an article published by us, September 27, 1845, at the time when Wakley was attempting to destroy, *per fas et nefas*, the National Association. This article, on which, indeed, all turned, was addressed to the body of general practitioners, and couched in these terms:—

"TO THE NOW UNITED BODY OF ENGLISH, IRISH, AND SCOTCH GENERAL PRACTITIONERS.

"GENTLEMEN,—We are credibly informed that a nefarious combination exists to destroy, by sophistry and calumny, the formidable organization which now binds you together. For the first time since 1815 do you, twenty thousand gentlemen, form a united body, under a head of your own appointment, a committee of more than a hundred of the purest-minded and most respectable men of your body, men who, with the same interests and feelings as yourselves, are devoting time, thought, labour, and fortune to your discriminating service. Before you be seduced to destroy this unwonted union—alas! now so much needed!—or cajoled to brand with low charges some of the best and most deserving of your own body—men who are casting a lustre about the name of General Practitioner—let us implore you to pause and to ponder, with all the solemn deliberation befitting a judgment which, if ill made, may fling us back into our old position of chaotic anarchy, and destroy our prospects of a useful settlement for another century. Scrutinise, we entreat you, the motives and characters of the men who, at this critical conjuncture, would replunge you into your old feebleness and disunion. Who are they?



What is their character for honesty, pure mindedness, or love of you?"

It then went on to say that they were Wakley and his few followers, and proceeded to give briefly an estimate of their claims to public confidence. It then proceeded to notify that it was the exclusion of Wakley from the committee of the Association that originated his attack, and continued thus:—

"Is not their present hope in the assistance of those *pures* who, too proud to associate with them, are not too virtuous to use them, and whose policy is to keep up an everlasting badge of corporate disgrace over that midwifery and pharmacy which form in one case the *honourable*, in the other the *necessary*, feature of your practice? Such are the men who would betray you into the feebleness of discord, into the powerlessness of confusion! Can you hearken to them? Can you accept them as advisers against yourselves—against men of your own order—living, moving, thinking like yourselves, in the same practice, with the same feelings, interests, and wishes—men whose unsullied character and high social position place them beyond the suspicion of an equivocal action? Their character is beyond aspersion; their abilities not doubtful—for they are of your own order—their industry beyond all price. Believe nothing then on light authority, still less from an enemy—still less if that enemy be unprincipled—of such men. Remember their career of action up to this time. They have surely done enough, in creating and wielding with such sagacity your present organization, to justify some confidence in their honesty and discretion. We pledge ourselves that the re-appearance of the new bill in February will not find them at fault. They will be found then, as they have been found hitherto, on the high ground the profession marks out for them. They know that to fail would be to abdicate, and to give your vast union a new head. We should be the first to sound the alarm, and to bid you displace them for better men. But we have no fears. *We know the men.* Supported by the profession, they will never cease to labour, nor ever tire, till they have placed the mass of General Practitioners in as high a position as that of Physician in its palmiest days."

The *real* ground of this action was therefore this address in support of the National Association. The report of the trial containing "Vindicator" could only be trumped up into sufficient plausibility to meet a jury, by connecting with it our warning against Wakley! And how do our readers think Wakley got up his ridiculous charge of our reiterating and republishing the letter of "Vindicator"? He had sent his attorney's clerk, in the absence of our publisher, and ordered the original paper of January, 1845, to be searched for him out of the back stock, by a boy in the office! This he boasted of having done three times!

We had first a speech, containing *several falsehoods*, made, with apparent deliberation, by the Attorney-General; who, as though there remained a doubt yet to be removed of his being the least gentlemanly member of the bar of England, and mortified beyond expression at his former defeats, seemed resolved to carry a verdict, *côte qui côte*. Then followed a brilliant and powerful reply from Mr. Cockburn, who indignantly denounced the unscrupulous pleading that had preceded him, as something he had never before witnessed in the whole course of an "extensive professional experience." It was the most crushing philippic, both for opposing counsel and client, delivered for years in a court of justice. The judge summed up, but, with our present feel-

ings, we will not this week trust ourselves to express our opinion on that charge. We shall give it *verbatim* in our next number, with a full report of the proceedings, and our readers shall then have our comments on the whole case. The verdict was £175, the jury charitably adding £25 to their last finding.

We are advised that we have decisive grounds for a new trial. This matter will, therefore, again come before the courts with a result which, to our minds, is far from doubtful. But, whatever the result, no change will be made in our position as regards, on one side, the *medical* coroner, on the other as regards the medical profession. As the judge to-day *complained*, so do we rejoice, that we have again carried out our principle of "no apology, no excuse." "The *Medical Times*," as he said, reading it, "appeared in the court, letter in hand, yielding nothing, denying nothing, flinching in nought. In so many words it said—we stand upon the letter; judge between it and Mr. Wakley's character. Damages you must give. How much, we trust with secure confidence to your estimate of the character." Depend on it, this is the principle the *Medical Times* will persevere in!

#### COLONIAL MEDICAL JOURNALISM.

NEW SOUTH WALES has just been honoured by the establishment of a new medical journal. It is called the *Australian Medical Journal*, and is edited by George Brooks, Esq., Senior Colonial Surgeon. It is made up very largely with quotations from our own pages, of which we the less complain, inasmuch as the Editor handsomely makes us his acknowledgments in the following terms:—

"We are naturally led by these considerations to mention a periodical, with the perusal of which we have lately been favoured and delighted. That we had not sooner seen the *London Medical Times* we consider a misfortune, the rather because the minds of many of the correspondents in that publication appear to have been occupied with subjects which we intended to present to our readers, and on which we had written observations with that view. Our quotations, we are persuaded, will afford much satisfaction, especially to the country practitioner."

We shall only add, that we are happy that our columns can be made of use, even through a secondary channel, to our brother practitioners, and that our colonial contemporary may persist in turning our usefulness to further account in the cause of science, without any fear of our imitating the examples of our metropolitan competitors, in seeking legal interposition to stop the diffusion of scientific improvements.

#### FLOGGING IN THE NAVY.

THIS subject was introduced to the House of Commons on Tuesday evening by Mr. Hume. Several members spoke—among them Sir C. Napier, who expressed, amid the laughter of the House, a hope that Mr. Hume had not "also been popularity-hunting." The member for Finsbury (Wakley) was absent on the attractive occasion.

#### PUBLIC OPINION ON THE LATE "JUDGMENT."

(From the *Manchester Courier*.)

THE LAW OF LIBEL.—Mr. Wakley has, at his own expense, and, we dare say, very much against

his will, been the means of conferring a benefit on the newspaper press. He has given occasion to the Lord Chief Justice of the Queen's Bench to demonstrate, by a practical instance, that which we were beginning to feel doubtful about, namely, that the last legislative "amendment" of the law of libel really is an amendment after all.

We shall probably best explain what we mean by extracting the substance of what occurred in the Court of Queen's Bench the other day, in the case of the "Queen v. Cooke and Healey." \* \*

Manifest justice has been done here, and the legitimate freedom of the press vindicated. We repeat, that we are obliged to Mr. Wakley, inasmuch as he has been instrumental in evoking a judgment of the Court of Queen's Bench, valuable, because just towards the press—a judgment which will find its way into "the books," and do good service hereafter. Nevertheless, whatever may be the cost to Mr. Wakley, we can hardly be expected to sympathise with a man who has done his best to run down a rival, it may be, but also a brother journalist, by letting loose the law of libel upon him, and under such circumstances too.

#### PAINLESS SURGICAL OPERATIONS.

##### KING'S COLLEGE HOSPITAL.

#### INHALATION OF ETHER.—EXCISION OF SCAPULA AND ONE HALF OF THE CLAVICLE.

On Saturday last one of the most remarkable operations ever yet tried, under the influence of the ether was performed by Mr. Fergusson. W. Herman, a discharged soldier, aged thirty-three, had his arm amputated at the shoulder-joint, about three years ago, for scrofulous inflammation of the articulation. The articular surface of the scapula, being diseased, was scooped away. The patient regained a fair share of health, but the wound never entirely healed. The stump gradually enlarged, and indications of extensive disease in the scapula became manifest. Through eight or ten sinuses the probe could be pushed against carious bone. The outer end of the clavicle seemed enlarged.

It was thought that any further partial operation on the scapula would not be advisable, and its total removal was resolved upon.

Hooper's apparatus was first tried to administer the ether, but with no advantage. The patient breathed most industriously, but the only effect was slight excitement. Startin's inhaler (*Medical Times*, Jan. 30, 1847) was then tried, and the result was most striking. In a few minutes a quiet slumber was induced, when the surgeon proceeded with the necessary incisions. A wound was made along the upper surface of the clavicle, sufficient to permit the division of that bone at its middle with the saw; the skin was then cut along the surface of the acromion and spine of the scapula to permit the division of the trapezius muscle; these two wounds were then continued in a single line down the cicatrix of the stump, as far as the axilla near to the lower angle of the scapula; the skin was now partially raised from the back part of the bone, a small flap was raised in front, the pectoralis minor was cut from the coracoid process, the scapula drawn backwards, to permit the division of the muscle attached to it behind, and the whole bone, with the outer end of the clavicle attached to it, was speedily severed. The axillary artery was open to the end of the stump, but bleeding from it was arrested by pressure on the subclavian over the first rib. Five or six vessels besides this one required ligatures, but not more than three or four ounces of blood were lost. The wound was stitched, cold



cloths were applied, and a roller was carried lightly round the chest. The whole proceedings of the surgeon occupied about fifteen minutes, and during the most of the time the patient was unconscious of suffering. As the ether seemed to lose its effect he breathed it again from time to time, and though in some degree aware of what was being done, as evinced by occasional remarks made to those around, and by slight moaning and moving, he seemed to feel nothing in comparison with the severity of the operation or magnitude of the wound. Shortly after, as he regained his senses, he declared that he was hardly conscious of anything having been done, and that he felt altogether very differently than on the occasion when formerly under the surgeon's hands.

Feb. 11. Up to this date, patient has been going on most favourably; no bad symptom has yet appeared.

This operation is of much interest as regards the influence of ether, and, in a surgical point, of great importance, as it is understood to be the first example of the kind that has ever occurred in this country.

#### OPERATION FOR SCIRRHUS OF THE LEFT BREAST, PERFORMED DURING THE INHALATION OF SULPHURIC ETHER.

By Mr. PHILPOT BROOKES, M.D., M.R.C.S. England, Surgeon to the General Hospital and Dispensary, &c.

Having occasion to perform the operation of extirpation of the left breast, for a scirrhus tumour, but in which the glands of the axilla had not become diseased, I gladly availed myself of this the first opportunity I have had of trying the effect of the inhalation of ether; and its being the first time it has been used in this town for any capital surgical operation (although Mr. Tibbs, the dentist, had succeeded with it for the extraction of stumps of teeth), I invited the following members of the profession to be present:—Dr. T. Smith, Mr. Eves (one of the surgeons to the hospital here), Mr. Dalton, Mr. Orrell, Mr. Fagan, Mr. Tibbs (surgeon-dentist), Mr. Gregory, and Mr. Peart.

The great importance of this invention, as regards operative surgery, renders it necessary that surgeons should make known all the cases that come under their observation, and on that account I have given the full notes of this case.

The inhalation of the sulphuric ether was kindly managed for me by Dr. F. Smith (one of the physicians to the Hospital and Dispensary), who administered it by a simple gum elastic tube with an ivory mouthpiece attached to a damp bladder, placing in it about two ounces of ether, and putting the bladder in warm water. The ether used was Howard's sulphuric, which had been washed and redistilled by Mr. Smith, chemist, of this town. At first we had some trouble to persuade the patient to inhale properly, but after a short time, and becoming anxious herself to have the operation performed, she did so vigorously, and the ethereal effect was produced. In about four minutes from that time she fell back in bed, the arms dropped to her side, the pupils very much dilated, eyes turned up to the orbit, and sensibility appeared gone. I commenced my operation, which was performed by two elliptical incisions of about four inches in length, extending fully round the nipple to the border of the axilla, dissecting out the disease, one small artery having to be tied: the operation occupied about two minutes. After the lapse of nearly six minutes, the patient recovered her consciousness, and, when asked if she had felt any pain, said—"None whatever; you have not done the operation, you are only deceiving me." And we had some difficulty to persuade her to the contrary, in fact she would not credit it until I gave her the breast to look at. Since the operation, she has been questioned by several parties how she felt, and her answer is, "It was a pleasant sensation, no pain of any kind; and she could not now even believe it possible the disease was cut out with a knife."

The patient had not any bad symptoms from the ether, either during its inhalation or afterwards. The pulse rose from 80 to 125; she complained

shortly after of a little pain in the region of the heart, but this left her in a short time. One wine-glassful of brandy and water was given her after the effect of the ether had disappeared, and at night the pulse was soft, 100; patient very tranquil; skin moist; complaints of some difficulty in voiding the urine. A sedative draught was given her.

All the gentlemen present, whose names I have deemed it advisable to give, felt perfectly satisfied that the operation was performed without the slightest sensation of pain or uneasiness, and expressed themselves highly gratified with the result.

On reviewing the cases of operations already performed under the influence of ether, we cannot regard the invention in any other light than as one of the greatest boons ever offered to operative surgery, in alleviating the great distress of mind and body which patients always suffer when informed they must undergo a surgical operation; and it must now become the duty of every surgeon to watch well the progress of this painless remedy, and judge for himself whether or not it is capable of being brought into very general use. I am only sorry the talented inventor should have clogged it with a patent, which I trust will never be allowed to stand: he deserves a far higher reward than that of turning it to a mere mercantile speculation. I cannot close this article without publicly thanking Dr. Smith for the trouble he has taken, in trying the effect of the ether on healthy subjects, preparatory to giving it this patient, and the judicious manner in which he administered it for me.

Albion-house, Cheltenham, Jan. 27.

Some operations have been performed on the eye, at the Liverpool Eye and Ear Infirmary, by Mr. Neile. Two cases of cataract were operated on, each of the patients stating that they had felt no pain. In a third, the patient had felt "a prick" in his eye. A fourth case was a failure. Another case of strabismus was subjected to operation; some evidence of pain was shown, and the patient's statement varied much after consciousness returned.

Two operations are reported to have taken place at the Hereford Infirmary. A tumour, weighing three or four pounds, was removed from the back of a woman, aged sixty-six, requiring an incision of ten inches in length. The operation lasted fifteen minutes, and yet the woman showed no expression of pain. The second was that of a boy, who, having long suffered from disease of the knee, required amputation above that joint. In this case no pain was felt; the time of the operation being occupied by an agreeable dream. No unpleasant symptoms followed the operation.

[To the Editor of the Medical Times.]

SIR,—I deem it advisable briefly to communicate to you the result of five cases of inhalation of ether.

The first, by way of experiment, to a youth about fifteen, of the name of Twist, from Knowsley; the result was perfectly satisfactory, and during its influence the usual phenomena occurred. I pinched and pricked him severely, nevertheless he manifested no sign of sensation, and afterwards declared he had not felt any pain, but that he had been comfortably asleep.

The second case was a youth; in him it produced all the effects of the nitrous oxide. No sooner was he under its influence, than he rose from his seat and became pugilistically inclined, but we secured him.

The third was a young man from whom we extracted a tooth; and on the return of consciousness I asked him if he had felt any pain? He replied, "No, I have been asleep." The tooth was then shown to him; he immediately put his fingers into his mouth and said, "By gum it is out, and I never felt it." (By gum is a low phrase in Lancashire, meaning to verify anything.)

In the fourth, I was greatly disappointed, in observing all the characteristics of nitrous oxide. After a few minutes' inhalation, he riveted his eyes upon me, and, with an hysterical laugh and peculiar convulsive expression, became quite unmanageable; he fought, kicked, attempted to bite, and it

was with difficulty my assistant, pupil, and myself, could restrain him; he became a little more tranquil, and began to sing in a low tone, but before he had concluded his song he suddenly roused, and, observing us around him, inquired with a wild expression, what we were holding him on the floor for?

I may just observe, that during its influence the pupils were dilated, pulse quickened, lips livid, and more or less stertorous breathing—in fact, anything but pleasant to behold. In ten days afterwards, the inhalation was repeated on this patient, and the same effects produced.

My motive for taking up my pen is for the benefit of those who are not acquainted with this peculiar effect, in order that they, previous to any operation, may be prepared for the worst.

Prescot, Jan. 27.

J. WELSBY.

Dr. Simpson, of Edinburgh, has employed etherization as a means of alleviating pain during the operation of turning. The mother was lame and deformed, but the capacity of the pelvis was sufficient for the passage of the child's head. The child was born in a state of asphyxia. The labour pains, or contractions of the uterus, persisted during the state of insensibility, although the woman was not conscious of their occurrence. She recovered with greater rapidity than after her former confinements.

#### ON THE USE OF THE VAPOUR OF ETHER IN NEURALGIA.

By EDWIN MORRIS, M.D. and M.R.C.S.

Few diseases have been more perplexing to the medical practitioner, or have so obstinately resisted all plans of treatment pursued, as neuralgia, more especially that form of it known as "tic douloureux"; and, if I were to give a list of the various remedies which have been from time to time recommended by the profession for this painful affection, I verily believe a single copy of the *Medical Times* would not contain them. This is sufficient proof with what uncertainty this disease has been combated, and that we have no specific for this acute complaint; both medical practitioners and patients have eagerly caught at any remedy recommended, from however doubtful a quarter it might come: the former from a desire to have at his command a remedy capable of annihilating the disease, and the latter from a wish to be relieved from their acute suffering; and, doubtless, both parties will hail with extreme satisfaction a plan of treatment capable of effecting the desired object. I firmly believe that I have discovered a specific for neuralgia, and lose no time before introducing it to the notice of my professional brethren, as I am desirous that it should be extensively tested, to ascertain whether their experience with it will coincide with mine. Neuralgia, in all its varieties, is very common in these fenny districts, owing, no doubt, to the depressing effects upon the nervous system of marsh miasmata; I considered, therefore, if I could stimulate, and, at the same time, deaden the sensibility of the painful nerves, I should most probably effect some good. It instantly occurred to me that I had the means at hand, from its now admitted power of deadening the sensibility of the nerves, viz., the vapour of ether; and I decided in my own mind to try it upon the first case that presented itself to my notice. The next day I was sent for to a person to whom I had frequently been before for the same complaint, viz., most acute neuralgia of the second division of the fifth nerve; she complained of a burning heat upon the face below the orbit, and of a little numbness; the pain came on in paroxysms about every five minutes. I had scarcely been talking to her two minutes before a fit of pain came on: she rolled about upon the bed in the most intense agony, and stated that it "was like a red-hot needle being thrust into the cheek," and begged that I would immediately relieve it. In her former attacks, I had tried all known remedies: opiates were of no use, indeed they caused more harm



than good, inasmuch as they affected the head and constipated the bowels, without producing a corresponding benefit. During the occurrence of one of the paroxysms, I caused her to inhale the vapour of ether; she had taken very few inspirations before the pain completely left her. Her gratification and delight at the sudden transition from acute pain to perfect ease were most satisfactory. I did not carry on the inhalation to insensibility; as she had found ease, I discontinued the inhalation; I carried it on sufficiently far so as to produce giddiness, it also made her very talkative. I staid upwards of an hour, and, no further paroxysms occurring, I left her for the night and sent an aperient powder to be taken immediately. I found, upon my visit next morning, that she had passed a comfortable night, her bowels had been well relieved by the powder; I sent a mixture, containing half a drachm of the citrate of quinine and iron, with directions that a sixth part should be taken three times a day. When I called in the evening she stated that she had slight twitchings in the face, and was afraid the pain was returning, and desired that she might again inhale the vapour; I allowed her to do so, until a little confusion in the head was produced; I then left her for the night. It may be as well to state here that "Robinson's inhaler," which I have, was too large for me to carry with me; I therefore fixed into the cork of a wide-mouth glass bottle a piece of flexible tube (an old oesophagus tube), and also a piece of quill, so as to admit a current of air; this rudely-constructed apparatus answered remarkably well; it was convenient, too, inasmuch as I could carry it in my pocket. My patient told me the next morning that she had passed a most delightful night. She continued taking the mixture for four days, and has remained quite well ever since. The next two cases, which were equally as acute, I treated in the same manner, taking care, after the first inhalation, to administer a brisk purgative, and afterwards give the citrate of quinine and iron.

The next case was one of neuralgia of the testicle. I was sent for to attend upon W. T., aged eighteen years. When I saw him he was rolling about the floor, apparently in great pain; I thought he had the colic, but, upon questioning him, he informed me that he had "a dreadful pain in his right stone," which came on every now and then; the perspiration stood upon his face; and he stated that the pain was most agonizing, darting up the spermatic cord, towards the crest of the ilium. He was quite free from any venereal complaint, and had not received any injury to the parts. He attributed it to having been out in the rain for several hours two days previously. A paroxysm of pain came on during the time I was examining him; there was considerable retraction of the testicle, as well as contraction of the scrotum. During the time the pain was on, I desired him to inhale the vapour, which he did most eagerly; after it had induced giddiness I wished him to desist; the pain, however, still continuing, I was determined to carry it on until insensibility was produced; upwards of half an hour elapsed before this was accomplished, owing to the imperfect apparatus I used. I, however, desired him to persevere, and during the time of inhalation he had two distinct paroxysms of pain; but, during the third, the vapour produced the fullest effects, and he fell backwards insensible upon the bed. For five or six minutes after, I could make nothing of him; he was evidently much and powerfully affected by the ether; after he became thoroughly sensible, he stated that all the pain was gone, and that he was well. I gave him a brisk aperient and left him. He informed me next day that he had not had any more pain, and that he was very well; his bowels had been very much purged. He never afterwards felt any inconvenience, and was at his work again three days after the attack.

The above cases are extremely satisfactory, and further demonstrated the fact, that the vapour of ether has the power of paralysing, as it were, for a time, the natural functions of the nerves. This discovery of our American professionals is a most

important one, and my cases tend to show the great blessing they have conferred upon suffering humanity; and I have not the least doubt but before many weeks have elapsed we shall have recorded in these pages numbers of cases of neuralgia successfully treated by the vapour of ether, and to which I have the honour of first calling the attention of the medical profession.

Spalding, Jan. 31.

#### PAINLESS OPERATIONS ON THE LOWER ANIMALS.

At the Royal Veterinary College, Camden-town, the inhalation of the vapour of sulphuric ether has been had recourse to with the most decided success during operations on the sheep and horse. The first-named animal was affected, and had been for some months, with ulceration of the hock-joint, associated with a large deposit of osseous matter and sinuous wounds, discharging ichorous pus. The pain was very great, and the foot could not be rested on the ground. The sheep being caused to inhale the ether vapour through a tube, in about five minutes she was under its full influence, when Mr. Simonds proceeded to amputate the limb, at the thigh, without the slightest suffering being evinced by the animal; and within eleven minutes from the commencement she was restored to perfect consciousness.

Before the horse was sufficiently affected by the hypnotic, a little more than thirteen minutes had elapsed, when he fell forward, and being turned on his side he remained perfectly quiet while Mr. Spooner divided and excised a portion of each metacarpal nerve of the near foreleg, the foot-joint capsule being in a state of ulceration. As in the sheep, not the slightest pain was evinced even when the nerves were cut through, and in about twenty minutes the effects of the ether had entirely passed off.

No mechanical contrivances were resorted to, nor any restraint whatever exercised, to keep the animals in the required position for these operations, and there is no doubt the state of insensibility would have been produced sooner had the apparatus employed been more perfect, that used being one temporarily arranged by Mr. Morton for the occasion.

#### MISCELLANEOUS CORRESPONDENCE.

##### MIDDLESEX CORONERSHIP.

In consequence of the Attorney-General having, at the trial of Wakley v. Cooke and others, stated that "Mr. Wakley's continued exercise of his functions (as coroner) depended upon the result of this rule," it is said that an active canvass is going on for the coronership of the western division of Middlesex.

\*\*\* We fear that the Attorney-General was nothing more than the medium of a falsehood to the court.—Ed.

##### MR. SKEY, IN REPLY TO C. CLAY, M.D., MANCHESTER.

Grosvenor-street, Feb. 2.

SIR,—It is a cruel and an unjust act of any one to attempt to deprive you of the merit of your exertions in the cause of surgical science. I am not surprised that the endeavour to inflict on you so grievous a wrong should have tempted you beyond the range of courtesy due from one professional man to another, perhaps even from one gentleman to another.

I strongly suspect you are not aware you have transgressed this time. You say you translated M. Langier in 1839 or 1840. I regret that your interest in the profession is not greater. I never heard of your book, excellent though I doubt not it is, till advertised of its existence by your letter.

Touching the treatment in question, whether M. Langier or I am the discoverer, I neither know nor care. If you can establish your claim to it I shall be equally content. My ambition, if I have any, does not blow from that quarter. Yet I have a tolerably strong impression that I had adopted the practice you claim for M. Langier many years prior to either his pamphlet or your translation.

The limited number of patients consigned to my care by the governors of St. Bartholomew's Hospital may not have furnished me with experience on this, nor perhaps on other matters, equal to your own.

With respect to my humanity, it is not on the record, and I recommend you to leave it alone; and, as I have other occupations more important than that which has given rise to this correspondence, I respectfully request that this letter may, in your courtesy, be deemed a reply to your next communication, should you consider it requisite to write one.

I am, Sir, with great respect,

Your most obedient servant,

T. C. SKEY.

To C. Clay, M.D., Manchester.

#### SNUBBED AGAIN.

[To the Editor of the Medical Times.]

SIR,—The members of the College of Surgeons are fond of being snubbed; but I think the 28th clause in Mr. Wakley's Registration Bill will prove rather too great a trial of their favourite propensity.

It is there gravely proposed to erect the Council of the College of Surgeons into a tribunal for the trial of the members, if accused of "conducting themselves in a manner calculated to bring scandal and odium on the profession," or of "having been guilty of any other disgraceful behaviour"; and, in the event of their being found guilty, the registrar is forthwith to strike off their names from the list of the qualified, and thus exclude them from the ranks and emoluments of the profession.

Medical tribunals may be all very well in principle, but some folks certainly are not very happy in the practical illustration of them. Dr. Tyler Smith, and Dr. Webster of Dulwich, may, or may not, be competent to enact such an important function. On this opinion will differ; but the plan of making the Council of the College both judge and jury is a little too good a joke.

Just fancy the connoisseurs of THE CHARTER sitting in judgment on a case of supposed "scandal or odium"! or the College laying down the law as to what is or is not "disgraceful behaviour"! Figure that, and keep your countenance, Mr. Editor, if you can.

This Finsbury senator will certainly be the death of us. Your obedient servant,

ECHO VERITATIS.

#### MORTALITY TABLE.

For the Week ending Saturday, Feb. 6, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1103	1068
SPECIFIED CAUSES...	1100	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	142	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	101	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	155	170
Diseases of the Lungs, and of the other Organs of Respiration....	450	354
Diseases of the Heart and Blood-vessels.....	49	32
Diseases of the Stomach, Liver, and other organs of Digestion.....	82	70
Diseases of the Kidneys, &c.	8	8
Childbirth, Diseases of the Uterus, &c.	13	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	7	7
Diseases of the Skin, Cellular Tissue, &c. ....	3	2
Old Age.....	68	81
Violence, Privation, Cold, and Intemperance.....	22	30



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## THE HUNTERIAN ORATION.

The annual Hunterian Oration was delivered on Monday last, the 15th of Feb., before the fellows and members of the College of Surgeons, by J. H. Green, Esq., senior surgeon of St. Thomas's Hospital. The theatre of the college was crowded in every part. The able orator addressed the audience to the following effect:—

Mr. President and Gentlemen,—On this occasion, standing at the cairn on the heath, which is the memorial of the great man by whose name these addresses are designated, I now appear to add my humble tribute and drop a stone on the pile; and, whilst I behold in this large assemblage a recognition of the vast services of the labours of John Hunter, I am reminded that, on such occasions, his excellencies should be held forth as a pattern to those who aspire to professional eminence in advancing the progress of science. And, if we regard the great man whom we now meet to honour as the teacher to whom the aspirant should look to animate him in what ought to be his aim, it cannot be said that the example is deficient in brightness. Surely, never were honours more justly claimed! From him, indeed, we may date the rise of scientific surgery; but, invaluable as were his labours here, may we not rather say that he performed the more important service of reorganizing the whole art of healing, by placing it on the important foundation of an enlightened physiology? In the immense accumulation of facts exemplified in the collection of preparations within these walls, and in their accompanying descriptions, we have not only the evidence of a deep and wide research, but the waymarks of a mind which was progressing to the attainment of a scientific idea—an independent truth, of which the form is a great law of life.

It was the peculiar merit of Hunter, whilst establishing the science of comparative anatomy, to fix first the power of scientific phraseology by banishing mere hypothesis and fiction, and, considering life as a law, implying that it is anterior in order to that organization which it animates, sustains, and impresses. He thus furnished the basis of a new science, in which every part of organized creation would be made intelligible by the other, while the whole should bear witness to the perfection of the human frame.

But, gentlemen, my present purpose is not to dwell on John Hunter's merits—superlatively eminent as they were, and greatly as physiology and surgery are indebted to them—but to consider how the contemplation of his excellencies may prove serviceable for the formation of a scientific character in connection with the requirements of our profession. And here, on the threshold of our inquiry, we are met with a difficulty which can be neither denied nor disregarded. It is this—the peculiar characteristic of Hunter's mind was genius; now, if we admit, according to the universal belief,

that this implies a primitive condition of mind unattainable by human effort, which is peculiarly the gift of Providence, imparting to its possessor some mysterious power over the difficulties of ordinary mortals, then must we abandon all hope of attaining a character like Hunter's, by mental culture and exercise. Nevertheless, who will deny that, by educating and cultivating the talents which an individual may possess, he may increase the freshness, improve the vigour, and strengthen the productiveness of the faculties of the soul? And if, the arts and science of healing especially require that the mind should rely on its own resources, it is of vast importance to study how it may be best prepared to exert its native powers, and to render certain those results which otherwise would, at best, be happy accidents.

On the other hand, let genius cease to impose on itself the discipline and labour of concentrated thought, and we shall find the original power of the mind spending itself in an empty activity. And this view is not a little strengthened by the history of those favoured individuals who lay the highest claim to the possession of original thought. The application of Hunter himself has been too often presented from this place to need additional remark; were it necessary, I might point to Milton, whose perfected majesty and elevation were acquired by the price of the industry and devotion with which in early life he laboured to build the lofty rhyme. All those processes of thought which, in the man of ordinary mind, form his distinct special consciousness, and move spiritually the soul, have, in the man of genius, passed into the life, filling his words with significance, and giving to his actions their productiveness. Broad, however, as is the stream it is by rills that it is fed; while the raindrop and the melting snow are not too small to be neglected or left behind, but contribute their share to the fulness of the current.

Instead of treating genius as a mysterious endowment or occult faculty, I would far rather say that it is the healthy condition and proportionate and expansive development of all the powers and faculties which are essentially human, and their harmonious and united action; hence a more correct expression for genius would be *individuality*, since hereby we understand that union of free will and reason by which the individual consciously and universally unfolds his nature, and asserts his individuality of thought and act.

Various indeed are the forms which reveal the essential idea of humanity, various the causes of degeneration which render its growth imperfect, and various the phenomena of mental exercise and moral excellence to which it may give birth; still it is the continuous high exercise of these powers within the soul which gives an exalted impress of character to a Luther, a Dante, or a Milton, and which stamps immutability on their acts, words, and aims. I need, perhaps, scarcely remind you, however, that I am not now speaking of the mind merely in the activity of its highest functions, for I must ever

believe that genius, in its undoubted primary eminence, is always associated with moral worth.

If, then, the individuality of the mind be universal in its end, aiming at harmonious development by the exercise of each and every power, and thus to realize the best birthright of humanity, we may now hope with better success to attempt the solution of our problem—In what does the individual light of humanity consist? This, I say, is the *ideal*; however distant, however high, this we must unceasingly endeavour to approach; and I anticipate no objections when I state that the best preparation for this attainment, in its widest scope, consists in a liberal education. If any justification or apology could be deemed necessary or appropriate for what may be a deviation from the usual subject-matter of these addresses, it might be found in the provisions of the charter of this college, which provides for the institution and maintenance of a class of fellows, who are required to have their scientific qualifications grounded on a liberal preliminary education. In carrying out the great provisions of the charter, the council of this college, with due regard to the interest of the particular science over which they preside, have determined on following, in this respect, the example of our universities—that the fellowship of the college shall be granted to a degree equivalent to that of a graduate of arts; and I cannot doubt but that you will agree with me, that our time to-day will be well occupied in considering whether the aim of the council is not worthy of their position, in seeking, by this offer of a high inducement, to promote the enlargement of the foundation on which the superstructure of a surgical education may be raised.

I am free to confess that I should feel great reluctance on entering on the difficult task before me, were I not cheered by the example and aided by the wisdom of my revered tutor and lamented friend, Samuel Taylor Coleridge, whose name is endeared to all who have derived from him the habit of discovering and observing the beautiful in the ordinary objects of human intuition. In estimating the influence of his opinion and example on the mental culture and literature of this country, I may say, to posterity may be safely intrusted those productive ideas, the possession of which is for our benefit, and connected with which his own example shall not fade away, but his name shall live from generation to generation.

In the commencement of this survey of education, and in every stage of its progress, let us not forget, that as the force of all organic life must proceed from within, so must the activity of the soul spring from its own deep desire; nor can any external influence ever infuse this life-sustaining energy, however it may feed and excite. But, if this principle is to be carried out, the primary act of the teacher will be that of calling forth the intelligent faculties from their dormant state, and disciplining the mind to those habits of conscious reflection, which it can and must of its own powers—apart from the contingent subject-matters on



which they are exerted—practise and enjoy; and hence those capabilities of the mind which we call abstraction and generalization are the first to be exercised. In early childhood the germs of these processes may be traced in the law which shows itself in the association of different objects, by their points of resemblance as well as in the perception of likenesses—a process which will be found to involve the abstracting power; and, as the pleasure of these acts is but the foretaste of those exalted enjoyments which are laid up in store for its further reward, so also are they the first occasions on which it is employed. It is not necessary, I presume, that I should dwell on the first instrument of scientific instruction—the alphabet, though its invention may be regarded as a primary epoch in the history of all mental culture. It is in the accident that we first observe the value of the instrument which language provides, for in it will be found the parts of speech necessary to the expression of all the faculties, and by which the mind carries on its processes of thought and reason. One illustration must suffice. In all the known languages of civilized man there are the noun and substantive, to convey the independent conception of independent existence; the verb, to denote action or passion, and the verb substantive as the expression of the coherence of subject and deed. The verb substantive is a primary word expressing the act by which the individual asserts his personality, as in the sentence—"I am."

It may then be deemed, that in acquiring the accident of language, the scholar will become acquainted with the relations of thought which they represent; but he will do more than this—he will have learned that the life and mould of knowledge is to be sought in the depths of his own consciousness: for as by the significance of that word, "I am," he comes to the recognition of his own subsistence as a spiritual being, and thereby knows what subsistence truly is, so also, in the contemplation of the objects of outward existence, he regards them as partaking of reality by the same subsistence, the consciousness of which arises out of the depths of his own nature; and, thus investing nature with exalted dignity, his words are not mere sounds, but living powers by which the mind raises a transient world into its own likeness.

I may add, it would be difficult to attach too much importance to a knowledge of words, and their definite import and appropriate use, as shown in a correct style. But I do not allow myself to forget the principle upon which we set out—the harmonious development of all the faculties, by embracing the various classes of objects of cognition and reflection in one comprehensive circle of education.

As a subject well suited to engage and exercise the faculties at this period, active and capable of further development, we may mention natural history with especial reference to its scientific character: a study which offers food for every capacity, and which is, perhaps, more favourable than any other, to enlarge and tranquillize the mind. For this study we have opened to us the living panorama of God's works, in which earth, air, sky, and ocean meet, with their multitudinous assemblage of details, which rise on the sense and youthful mind as upon our first progenitors, and fresh as on the morning of creation. The heavens, with their golden firmament; air, with its changeable phenomena; water, with its mighty oceans, tides, and currents; earth, with its secret treasures and precious gems, its surface diversified with rivers, mountains, lakes, and valleys, relieved and enlivened by the different forms of living growth—all was his inquiring search; and while these, by their luxuriant variety and glorious extent, excite curiosity, rivet attention, and sustain interest, they induce comparison of the like with the like, and the like with the different; and not only impress the mind with the obvious adaptation of means to ends, but evoke those latent powers which, enlarged by reason and directed to right objects, become the human understanding. The student who thus waits upon Nature shall learn that her office has a prophetic aim, standing between the Divine mind and the human; she proclaims the wise intentions of the Creator.

To natural history is nearly joined the history of man, in his relation to the earth as his home, imposing on him so many conditions of existence by the various and changing circumstances of temperature and climate, the distribution of land and water, the position of seas and course of rivers, the arrangement of mountains and plains, and all the various phenomena of organic and inorganic being. In looking back to the youth of our race, and recalling the migrations, settlements, and state of man in civil and individual life, let us remember that if that state of man is most natural which is best suited to full development, then the state of nature is not to be sought in the records of the past, but exists only in the idea; not in what he is, but in what he is to become; it thus must be produced by himself. In the life of the first individuals, the primeval source of our species, this most favourable state was transient indeed; and we may suppose it to have been so as if to teach man that what is not won by himself must be lost, if only to be regained by his own efforts. The student will best study, in connection with the physical history of our globe, the primitive condition of the human race, with its separation into races, its wanderings in hordes, its political confederacies, states, kingdoms, and empires. History, the exhibition of the great scheme of Providence, arising out of the mists of mythological fancy and fable, its stream gently rolling down the hill, gathers in its course the waiting tributary waters of legend and tradition, till, reaching the plain of historic truth, it flows a majestic river, securely embanked by written documents and recorded facts. The condition of the possibility of being brought into lively communication with the primordial representatives of humanity—of the possibility of the transmission from age to age of accumulated knowledge—is written language; this is the key by which we unlock the wisdom of the past, and the guarantee of the secure preservation of our record to the future. In literature—as connecting nations with others differently cultivated, and uniting the past with the future—we possess that which gives continuity to time, which secures both individuals and communities from a fragmentary existence, and places them in a circle of light.

We know that words are the living signs of ideas, and every additional language which a man acquires may be regarded as the gain of a new limb without its deformity. I need not speak of the merits of that instrument which enables a man to call to his counsel the wise and great of countries and states, once flourishing under the most auspicious circumstances, or the utility of that which enables him to shed the benefits of his knowledge on less-favoured communities.

But the value of a knowledge of the languages which belong to man universally is no less apparent if we consider the advantages we derive from them in explaining the processes by which the actual state of cultivation has been obtained, and in arming the mind for future enterprise and conquest. How shall we correctly interpret the oracles of God without a critical acquaintance with the languages in which they were originally recorded—written as they were for the instruction of the whole race, and which every man who is not wanting to himself will value? How shall we understand their eminently figurative expression without reference to the character of the Hebrew people and the peculiarities of Judaism, the introduction of Oriental philosophy, and the influence of their translation at Alexandria? How learn political science, unless we read the historians and study the laws and institutions of legislative Rome? What a loss to philosophy and speculative science, if we are denied the illumination of Plato and Aristotle, whose names still occupy a proud eminence, from which no rivals have been able to displace them? What hope for æsthetic art apart from the example of ancient Greece, and the advantages of comparison with her models elevated by grandeur, and clothed with majesty?

While to the moderns we assign the praise of carrying into their works the spirit of poetry, and by their genius attaining the highest power of suggesting what is in a sense inexpressible—the ideal, as witnessed by the productions of Shakspeare and

Michael Angelo—to ancient Greece belongs the merit of having invested the objects of the material universe with the highest charms of grace and beauty.

My auditors will not think, I trust, that I am so deficient in judgment as to suppose that one course of study is applicable to all in all its parts, or that its full completion could be accomplished in early youth; it is only for the sake of urging the advantage of making proficiency in the early period of life that I have thus expatiated on the study of language; and I hope I have succeeded in producing a conviction of the value of a grammatical initiation into those languages, whose treasures are part of the inheritance of our common humanity.

Let me, however, recal to your notice that principle of systematic study which reaches beyond the period in question. The progress made in our public schools will be valuable rather as a foundation for future proficiency than for the knowledge acquired in its limited course. The proper object of these grammatical studies is to afford a condition for the higher exercise of the powers which have by them been partially developed and exercised.

It has been received almost without inquiry, on the authority of Locke, although his doctrine is evidently founded upon a misconception of the meaning of a passage in Bacon, that the study of mathematics may be superseded by logic; but when we consider that science, as involving relations of all forms of sensible experience of time, space, and number, we shall regard it not merely as essential to a liberal education, but as more or less an indispensable element in a preparation for all the concerns of life. In the application of mathematical science to nature, as the sphere of our experience, we have a most sure knowledge which, vast even to astonishment, promises to enlarge without limit. With such advantages, it may be said to enable man to behold the ends of the earth and to survey all beneath the heavens; it is a science which carries with it throughout all its applications a certain necessity of truth; it rests, therefore, upon no grounds of experience, which could only give the knowledge that the fact is so, but cannot assure that so it must be. It is thus a pure product of the intellect; it is the work of the reason acting on the pure sense, for where else but in the reason can universality and necessity be found? That, then, on which all mathematical science proceeds, is not an achievement of sense but a condition of the human mind. In the light of this fact how well might Plato say, "Let no man enter the school of philosophy who has not already disciplined his mind by geometry!"

The peculiar province of logic is the process by which we apply general relations to peculiar cases, and infer from less comprehensive truths such as are of general application, and obtain the evidence of universal conclusions.

In the daily course of life, alike in its ordinary and more important concerns—in the pulpit, at the bar, and the bedside—our minds are constantly exercised in the habit of ascertaining something from what is already taken for granted; and if, as has been said by an eminent living writer, it is desirable to do that well which every one must do, then must logic be regarded as an essential part of a liberal education. We may do much towards performing this mental process aright by perpetually guarding against the use of vague terms and expressions, and by accustoming ourselves to reason in precise language. The clearness so acquired will not be confined to the signs of thought, but will extend to the condition of the mind itself.

We have now reached that vantage-ground from which we may review the path by which we have travelled; but it cannot be doubted that the student who is earnest in the pursuit of truth will discover, amid all the means of knowledge which I have proposed, no place is assigned for truths having relation to him as a moral and spiritual being. Nevertheless, by diligent meditation and reflection on the diversity of his own consciousness, he cannot fail to discover truths which have their birth, growth, and fruitfulness in the heart, and without which he will live in the privation of the better half of his being—a truth which it is the



business of philosophy to bring into distinct prominence, but which is not more true of the heart than of the intellect, which, in its noblest style, is still but a fragment in the totality of man. Thus, communing with his own soul, will he be enlightened by those radiations which are coexistent with humanity in all places, at all times, and under all circumstances; and which, following the example of Plato, and under the sanction of Coleridge, I call Ideas; but which, be they what they may, are the guiding light of all our days—truths that never perish, and which nothing can abolish or destroy.

These living truths, however, may, and often do, beam upon him unconsciously, and quicken as the impulses by which humanity is moved and governed. Impulsive currents, they bear him along before the gale to his destined haven; loadstones, leading him through deep waters till conscious reason reaches her home. By these ideas the mind stamps its image on the objects of the external world. We smile as we read in Goldsmith the story in which, with exquisite humour, the imprisoned debtor is made to declaim with earnestness on the liberties of Old England; and yet, on deep reflection, who will assert that the idea of the British constitution was not consciously and distinctly present to the minds of the statesmen and patriots who mainly contributed to its establishment? It was this idea which, taking deep root in the national mind, like the native oak in the soil, was at once the assurance and the pattern of our liberties; and I have still faith in the English hearts of my countrymen to believe that, as long as its spirit remains national, its security is guaranteed in their loyalty and love of freedom.

The philosopher following Seneca has well said, the two sublimest objects of contemplation are the firmament without and the moral world within: on the one hand, the image of a nature which addresses the sensuous imagination with the idea of the material universe; on the other, the overwhelming consciousness of the divine and immortal. To the mind that so meditates, the idea of God will not be merely that of a Supreme Being, absolute in his existence, perfect in his attributes, characterized by goodness and love, but as the prime source of light and of spiritual being. That word—the *λογος* by whom all things were made—is essentially the light and life of humanity. It is the doctrine revealed by John.

Εν αὐτῷ ζῶν ἡν, καὶ ἡ ζῶν ἡν το φῶς τῶν ἀνθρώπων.

Then, gentlemen, if reason be the sole universal light of man, it is the essence of all science. True, we have many sciences, but still they must all retain the nature and essence of the common stock from which they are derived.

It would be interesting and instructive to determine, in each instance, the points of connection with the whole body of knowledge; but I hasten to offer, in conclusion, some observations applying to our own profession. I am sure I need not dwell on the necessity of professional skill; every one here will not fail to secure that proficiency without which no honest man may ask the confidence of his fellow-mortals; but if I am asked what amount of skill will satisfy the requirements of justice, I say so much as will enable you to bring to each case the knowledge which the experience of the profession supplies. In this country any man, who has fairly availed himself of the advantages within his reach, will have the satisfaction of knowing that he is, in his own practice, doing what every other educated surgeon would do under similar circumstances; and, when unable to refer unfavourable symptoms to any intelligible principle, it is still to be our aim to combine them under the conditions which facilitate the discovery of their cause; and, hence, I hold in high esteem those institutions which afford the means of scientific insight to those who possess the advantage of a liberal education, and thus advance the ultimate ends of professional knowledge.

Disjoined from observation, the healing art would sink to the condition in which it existed in the middle ages, when medicine was a distinct branch of logic; on the other hand, apart from speculative science, the mere record of facts, without know-

ledge to make them intelligible, would be scarcely a remove from the practices of

"Puffing quacks who silly dupes allure,  
To swear the pill or drop has wrought a cure."

The confusion of the contraband trader with the regularly educated practitioner will be always possible where the professional practitioner is not, by a scientific acquirement, placed above a low empiricism; and his best security will be found in a studious avoidance of all appearance of tampering with such unholy practices.

I may be allowed to express my conviction that it is in our universities and colleges that medical education may be best grounded on those universal elements of science which are essential to a liberal profession. I hold it scarcely possible that a professional education can be accomplished except in such institutions, where so many pledges of discipline and learning exist for its prosecution, and where the *alumni* form lasting bonds, and learn to despise the low tricks and cunning of the ignorant. It is here that the members of all the professions will acquire those high endowments, and aspire to those high aims, which will constitute them, in the position they are destined to occupy as part of the gentry of the country, the adornment of the nation.

## ORIGINAL LECTURES.

### A COURSE OF LECTURES ON CLINICAL MEDICINE,

Delivered in the Theatre of Queen's College, Birmingham.

By SAMUEL WRIGHT, M.D.,

Physician to Queen's Hospital, and Professor of Clinical Medicine in Queen's College, Birmingham; Physician to the General Dispensary; Extraordinary Member, and formerly Senior President, of the Royal Medical, Royal Physical, Hunterian Medical, and Cuvierian Natural History Societies of Edinburgh, &c.

*Causes of the cholera of 1846; not referrible to the same causes as autumnal bowel complaint—to fruits, or damp evening atmosphere; the poor and the rich alike visited with it; atmospheric change the probable cause of it; reasons for thinking so derived from the occurrence of certain phenomena in the animal and vegetable world during 1846; perhaps due to electricity; illustrations in support of this belief; treatment of the diarrhoea; opiates; value of them in a fluid form; effects of their quick repetition; antacids; why chalk was preferable in some cases and not in others; mechanical combinations not always useless as remedies; treatment of the diarrhoea attended with dyspepsia; calumba as a tonic; its tendency to spoil, in infusion, during hot weather; treatment of the diarrhoea attended with fever; relative value of ipecacuanha and antimonials in intestinal irritation; treatment of sickness complicating the diarrhoea; prussic acid and creosote; mercurials in the diarrhoea; value of astringents; action of opiates.*

GENTLEMEN,—Our last lecture embraced a consideration of the general characteristics of the cholera of 1846. It now becomes us to treat of the probable cause or causes of this cholera, and of the diarrhoea and dysentery of which we previously spoke. On this point I fear there is little definitely to be said. As I told you, two or three lectures ago, the season was reversed for the occurrence of this bowel complaint:—instead of being our common autumnal visitant, its chief appearance was during the spring and summer months. Of course, then, it could not be considered the offspring of indulgence in the varieties of succulent fruits which, in the wane of the year, tempt unwary appetites. Apples, pears, plums, and such like, you know are a very frequent cause of gastro-intestinal disturbance in the particular season when those fruits are plentiful; and the hot days and cool damp evenings of autumn, alternately encouraging perspiration and checking it, contribute materially to the same complaints. Some unknown change in the electrical and other conditions of the atmosphere may also conspire to the same end for we often find people suffer

from autumnal bowel-complaint without having partaken of improper food, or having exposed themselves to the night-air. These three causes are perhaps chief in the production of the ailment I allude to. The two first, however, could have no share in the diarrhoea, dysentery, or cholera, of 1846. When these were most rife, fruit was not in season, and when this did appear, it was at a price that prohibited its general use. With the exception of a few cases in which cucumbers, or a doubtful kind of potato, appeared to have disturbed the digestive function, the quantity or quality of food seemed to me to be innocent of the mischief that raged amongst us. All classes of society, from the highest to the lowest, were the subjects of this suffering. Those who lived in dry, elevated, airy situations, and were fed with food best suited to their sustenance, shared in the malady, and in the mortality thereof, in common with the poor destitute who had no home of their own, and who fared indifferently every day. Indeed, some of the worst cases I saw were amongst respectable sober tradespeople and mechanics, inhabiting one of the driest, best drained, and best ventilated streets of the town. Of course, in many instances, the severity and fatality of the disease appeared to refer to previous dissipation or destitution on the part of the patient; such circumstances would naturally be expected; but, as I have said, antecedent good health, and discreet living, furnished no obvious exemption from the inroads of the epidemic. It appeared to be invested with the attribute of making victims indiscriminately: at least it was in this wise that its career began and was continued. After having attended a great many cases, and studied each deliberately in its several bearings, I came to the conclusion that some *general cause* was in operation to produce these things. Food, clothing, locality, occupation in life, previous ill or good health, all appeared to have but a secondary share in the mischief, whose origin seemed unlimited. For myself, I incline to the opinion that some atmospheric peculiarity, in density, hygroscopicity, electricity, circulation, perhaps, in all these, was the *fons et origo mali*. I think thus for two reasons—first, because no better explanation offers itself; and secondly, because we can refer to the same source, and probably to none other, certain unusual phenomena, both in the animal and vegetable world, last year. The potato disease, the dearth or destruction of the turnip crops, and the almost universal failure of the fruit trees, seem explicable on no other ground than that of atmospheric change. Beer fermented imperfectly; meat of all kinds quickly became putrid; various diseases prevailed amongst animals, especially cows, horses, and pigs; and we ourselves, as you know, were thus visited most severely. I cannot help thinking that there was a common cause for these things, and that it was chiefly atmospheric. Some have attributed them to the east wind, some to the rain, and others to the excessive heat. But the epidemic continued the same, from whatever quarter came the wind; in dry days, as in wet ones; and before and after the hot season, as well as during it. There might be a combination of atmospheric causes, and I think there was; but, if we could rightly search into these, it is not improbable that we should find electricity the chief of them. When the Asiatic cholera prevailed in this country, it was observed, as of last year, that there seemed to be a general putrescent tendency, and animals and vegetables were alike affected by it. In certain electrical states of the weather, as during thunder-storms the most extraordinary effects are often produced. Fermentation that is in progress will instantly cease. The baker and the brewer will tell you that they have often been losers thus; beer and ale will turn completely sour in a few hours, so will milk, so will bread, or it will become "ropy" or mouldy; meat will as quickly run into putridity, and the butcher dreads "thunder weather," as he calls it, for killing in. We know, also, what effect a sudden change in the electric condition of the atmosphere produces



upon living animals. Several hours before the actual occurrence of thunder, you frequently observe how terror is marked in the flight of birds; fowls will retire to roost, and beasts betake themselves to a place of shelter. So, amongst ourselves, strange effects are often produced. One person will predict thunder from a peculiar form of oppressive headache that always precedes it; another, from a nervous tingling or creeping all over the body; a third, from unusual elevation of spirits, and uncontrollable laughter; and a fourth, from depression and involuntary crying. Indeed, there is no limit to the extent and variety of effect produced upon some subjects by electrical changes in the weather. And the reason of this will readily be understood, when we consider how the functions of the animal body relate to electricity, and how this can be manifested, even by the contraction of a muscle. If it be true, as I conjecture, that an atmospheric change like that I speak of was the chief cause of the cholera of last year, it will also account for the nervous debility which I told you was the leading and the most formidable feature in the ailment.

Not to pursue this speculation further—for I am bound to consider my theory rather as probable than proven—we have next to speak of treatment.

The simple diarrhoea of 1846 was not generally unmanageable. Those varieties of it which were not complicated with fever, or with much gastric disturbance, readily yielded to ordinary remedies. If the stools were natural, a good opiate given at once was often the only medicament needed. Twenty drops of laudanum, or five grains of the soap-and-opium pill, seemed to answer best. I prefer the fluid opiate, because, as it comes into immediate contact with a larger surface than does the pill, it not only produces an instant impression if there be pain, but it is also more easily absorbed, and its remote effects sooner induced. When there was much prostration, one or two drachms of aromatic spirit of ammonia formed an excellent adjunct to the opiate. Frequently only one dose was necessary, but it sometimes required to be repeated every two, three, or four hours, according to circumstances. I generally allowed only a short interval when a repetition of the medicine was called for. At the risk of producing headache and drowsiness, I preferred to subdue the intestinal irritation as quickly as I could; and I had for my reason the fact that pain or local irritability is not easily relieved by opium, if the first few doses do not suffice. Not many doses have to be taken in acute affections before the patient is so accustomed to the drug that he is little advantaged unless its quantity be increased. I have frequently observed, in reference to bowel-pains, that the first opiate will act well enough, but that if the pain be allowed fully to return, and continue for some time before the next dose be given, its action will not be satisfactory; and less so will that of the succeeding ones be, if their periods of administration be unduly delayed. I have often known a couple of opiates given in as many hours do far more service than half a dozen given at long intervals.

When the evacuations were green, and indicative of morbid acidity in the *primæ viæ*, antacids of course were indicated. Chalk is preferable to any other, because the compound which it forms under such circumstances is not aperient. Muriatic acid is that which is furnished by the stomach in a state of health, but it is probable that, in a state of disorder or disease, this acid is not increased, but gives place to some other—acetic or lactic, perhaps. However this may be, it is not uncommon to find that when soda, or potash, or magnesia, is given to correct acidity in such cases as I have mentioned, the purging is considerably increased, and this is supposed to be owing to the salt formed between the prevailing acid and the alkali administered to neutralize it. Two drachms of creta, with similar quantities of tincture of opium and tincture of henbane, in half a pint of plain water, or peppermint-water when there was flatulence, answered excellently well, in

doses of an ounce every three or four hours. In some cases, when the opiate could not be borne, it was well supplied by half an ounce of tincture of bop to the half-pint mixture. Some of you may, perhaps, be curious to know whether I consider the putting together of laudanum and ammonia, or laudanum and chalk, strictly chemical. As far as the laboratory is concerned, I say certainly not; and the mixture is one which the mere laboratory-man might be disposed to laugh at. But he is not a practitioner, as you well know, and therefore his criticisms at the bedside go for nothing. Substances may be chemically incompatible, and yet medicinally consistent—for instance, opium and acetate of lead are invaluable when given together in some forms of bowel complaint, yet the combination (for it is chemically such) would tell us, *a priori*, that the narcotic action of the opium would be weakened or lost. Practice, however, tells us very differently—so does it in regard of the mixture I mentioned to you. Let me advise you, gentlemen, never to allow the carping of the mere chemist to persuade you out of what experience tells you, every day, is judicious and successful treatment. There are numberless facts which our practical opportunities place before us, without any explanations with them; but they are not the less facts on this account, nor the less entitled to our confidence and adoption.

When the diarrhoea was attended with dyspeptic symptoms, such as nausea, furred tongue, epigastric tenderness, and loss of appetite, the chalk was not generally found useful as an antacid: it was apt to increase the stomach disorder, notwithstanding its services to the intestines. In these cases, its place was well supplied by carbonate of soda—the vehicle being equal parts of water and infusion of calumba. This bitter you will find superior to most others in irritable states of the stomach and intestines. In gastro-intestinal disorder, attended with vomiting or purging, or with both, I know of no tonic vehicle equal to calumba. Where gentian, quassia, and bark fail, by increasing the irritability, or being comparatively useless, calumba will often do immeasurable good. I must caution you, however, when prescribing it in hot weather, to see that it be kept in a cool dark place, and well corked, or fresh prepared every twenty-four hours. If not, it is apt to do as much harm as, under other circumstances, it is likely to do good. In hot weather it soon deposits a sediment, and acquires a nebulosity and mouldiness, that not only destroy its good qualities, but impart to it others that are the reverse of useful. I have known a patient made very sick, and caused much pain and purging, by taking a spoiled infusion of calumba, whilst a better preparation of it never failed to be of service to him. I have no doubt that much of the unmerited blame that some writers have cast upon it has been owing to a neglect of the necessary precautions I speak of.

When the diarrhoea was attended with feverish symptoms, again, soda or potash was the best antacid. A nauseant, also, to lower the pulse, and determine to the surface, proved an excellent remedy. I say a *nauseant*, because there was only one that could be of any service. This was ipecacuanha. Antimonial preparations would have answered the same purpose, but they would have done something else—increased the purging! Be careful how you give antimonials when the bowels are irritable. They are excellent remedies in their proper place, but out of it they are dangerous, and much discretion is needed in the use of them. Ipecacuanha is a more manageable nauseant, and the only admissible one in intestinal irritation. When this is complicated with fever, and a quick hard pulse, and a dry skin, as in the cases I allude to, its services are invaluable. In its nauseating action it brings down the pulse like digitalis, but without prostrating the nervous power so much; and additionally causes profuse perspiration, which digitalis rarely does. This perspiration not only relieves the tense arid skin of fever, and assists in balancing the circulation and relieving internal congestion, but it diverts from the

irritant action going on in the intestines. There is a close sympathy between the skin and the interior of the bowels. Disturb either, and you interfere with the functions of the other. Give a good sweating in bowel complaint, if you can, and you will go very far towards removing it. Thus was it that ipecacuanha did good in the cases I speak of. In the form of Dover's powder, it was most valuable in doses of eight or ten grains.

When sickness was a troublesome symptom along with the diarrhoea, great benefit often followed a full dose of opium. In very many cases I observed the vomiting and purging to stop at once, on the exhibition of from twenty to forty drops of laudanum. But in some cases, though the purging was stayed, the sickness continued. In these, prussic acid proved most useful when the tongue was red, or its papillæ elevated, and the epigastrium tender on pressure. In the more atonic forms of sickness, or nausea rather, in which the tongue was pale and trembling, or covered with a white fur, swollen, and indented at its edges, prussic acid was of little avail, but creosote was generally successful. In the former, on the contrary, creosote only increased the sickness, and often added pain to it. These remarks not only apply to the particular cases I met with last year, but I believe they are generally applicable. I never saw a case of sickness that was attended with pain in the epigastrium, increased on pressure, a red tongue, especially at the edges and tip, and acid saliva, that was in the least degree advantaged by creosote; but I have often seen such cases aggravated by this remedy. On the contrary, they are just those which prussic acid is likely to relieve. This (say Scheele's), in doses of from one to two drops, with ten grains of carbonate of soda, in an ounce and a half of camphor mixture, is invaluable under such circumstances. As thus given, it proved most serviceable in the nausea, inclining to *gastro-enterite*, of the bowel complaint of last year. But where we had the pale, sodden, trembling tongue, indicative of gastric debility, the attending sickness was best counteracted by creosote. Occasionally, a dose of aromatic spirit of ammonia answered the same end. Sometimes, especially in the former variety of sickness, when fever also prevailed, and the fæces were deficient in bile, a mercurial was indicated. But neither blue pill nor calomel, even in moderate doses and qualified by combination with opium and ipecacuanha, could be used with safety. In the generality of cases, however guardedly given, they increased the purging without furnishing any corresponding good. The only mercurial remedy I could trust to, and in which I was least disappointed, was the grey powder—*hydrargyrum cum creta*. It generally answered every intention, and I believe did as little (perhaps less) mischief as any mercurial would do under the circumstances.

Astringents, such as kino, catechu, tannin, acetate of lead, sulphate of copper, and such like, were of little use in the diarrhoea I am speaking of. It was not a diarrhoea consequent upon laxity of the intestines—had it been, astringents would have been amongst its best remedies; to give tone to the weakened relaxed muscular tissue of the intestines would have been a fitting opportunity for astringents such as those I have mentioned; and, additionally to them, astringent injections, or enemata of cold water, might have been advantageously used. But in the diarrhoea of last year such treatment was not indicated, and, when practised, it did little or no good. Morbid irritability was the great evil to contend against. It was this irritability which gave rise to the constant action of the bowels, and was the cause of the excessive discharge therefrom. Directly that this was subdued the evacuations ceased, and so did the sickness, in most cases, when it was a concomitant. It was thus that our best remedy was found in opium. Given in doses sufficiently large, to produce an effect at once, and repeated before that effect had passed off, when repetition was needed, it rarely failed to prove curative in a few hours.



The other indications were fulfilled as I have already told you.

In my next lecture I shall speak of the dysentery and cholera of 1846, and of certain of their sequelæ.

## DUMAS ON ORGANIC CHEMISTRY.

No. XI.

### ON THE BLOOD.

(Continued from page 378.)

While consulting the tables given in our last lecture, we must not forget that, although mean calculations may suffice for the chemist, it is far otherwise with the physiologist and the physician, who have the greater interest in analysing each individual case, inasmuch as the complications of the principal disease will of necessity vary some of the numbers; while, at the same time, it is only by repeated research that we can ever arrive at an exact appreciation of the changes which supervene in the various stages of disease.

MM. Andral, Gavarret, and Delafond have recorded an interesting instance of this kind, in their treatise on the blood of animals. They performed seven bleedings, averaging about 12 lb., at an interval of about twenty-four hours, on a horse fourteen years old (which was past work and destined for the slaughterer), for the purpose of noting the alterations which the blood would undergo. The following are the results of the analysis:—

	1st.	2nd.	3rd.	4th.	5th.	6th.	7th.
Fibrine ..	3.1	3.5	3.0	3.2	4.3	5.2	7.6
Globules ..	104.0	97.0	85.5	61.1	51.3	44.5	38.3
Solid matters of serum	90.8	84.4	73.7	60.9	59.6	59.1	60.1
Water ..	802.1	815.1	837.8	871.8	884.8	891.2	894.0

The fibrine, which remained nearly stationary in the four first bleedings, was found to be suddenly augmented in the three last; this was undoubtedly owing to the supervention of an attack of pneumonia in the course of the experiment. We may further observe, that this augmentation of the fibrine, resulting from the inflammatory state, coincided with a gradual diminution of the globules in consequence of the repetition of the bleeding.

Another horse, already labouring under pneumonia, was bled four times, to a similar amount as in the foregoing case, leaving an interval of twenty-four hours between each operation. It died after the fourth bleeding:—

	1st.	2nd.	3rd.	4th.
Fibrine ..	8.1	8.9	8.3	7.6
Globules ..	85.5	72.7	58.8	48.5
Solid matters of serum	96.8	92.5	86.2	80.4
Water ..	809.6	825.9	846.7	863.5

We here see the proportion of fibrine remain stationary, at the same time that there is a diminution of the globules.

*Blood of a Woman affected with Melana.*—This fluid was thick, almost black, and possessed a slight odour of fecal matter; its colour was brightened by acids; potass. disengaged ammonia from it; it was not perfectly coagulated by heat; it underwent no spontaneous coagulation, nor did it contain any fibrine; the regular blood globules could no longer be distinguished in it, but merely shapeless particles, of a yellow colour, which were found floating in a clear liquid; the alcoholic extract contained a large quantity of fatty matter, and possessed a bitter taste. The dry residue, when acted on by heat, disengaged ammonia. It contained—

Water ..	886.2
Fatty matters of a brown colour ..	9.0
Albumen ..	39.8
Globules ..	36.5
Hematine ..	3.0
Hemaphysine ..	2.2
Alcoholic extract and salts ..	9.6
Aqueous extract and salts ..	10.3

*Diabetic Blood.*—Great uncertainty has for a long time prevailed among scientific men, as to the constitution of the blood in patients affected with diabetes. Professor Rollo affirmed that, in this disease, the blood invariably contains an appreciable amount of sugar. Nicolas, De Guendeville, Vanquelin, Ségalas, Wollaston, Henry, and Soubeiran,

have, on the contrary, been unable to discover any saccharine matter in it. M. Bouchardat states that sugar may be found in the blood, when this fluid is drawn a short time after a meal, although at a later period it may have entirely disappeared from it. This observation has likewise been confirmed by M. F. Simon.

Below are three analyses of diabetic blood:—

	Bou-	Henry,	Jan, and
	chardat.	Soubeiran.	Lecanu.
Water ..	803.7	816.3	848.3
Fibrine ..	1.9	2.4	—

Globules ..	118.2	120.3	85.1
Albumen ..	62.5	55.4	58.4
Extractive matters and salts ..	8.5	5.5	8.0

These analyses would seem to indicate that the blood, in diabetes, is apparently normal, in respect to its quantity of fibrine, but that it contains a less amount of globules and of albumen than ordinary blood. No saccharine matter was found in the above experiment.

Müller gives us the following analysis, the results of which seem altogether opposed to the foregoing data. His experiments, however, do not appear to me to be deserving of entire confidence:—

Water ..	681.0
Fibrine ..	4.4
Fatty matters ..	9.0
Albumen ..	119.2
Globules ..	140.2
Extractive matters ..	3.8
Salts ..	22.3
Sugar ..	11.2

Subjoined are the observations of M. F. Simon on this subject:—

Water ..	794.6	789.4	802.0
Fibrine ..	2.4	2.3	2.0
Fatty matters ..	2.0	3.6	2.2
Albumen ..	114.5	86.0	97.4
Globules ..	66.3	98.5	74.3
Hematine ..	5.4	5.1	3.7
Sugar ..	2.5	trace	trace
Extractive matters and salts ..	9.0	14.9	12.6

Lastly, we have an analysis of the serum of the blood, in a diabetic patient, given by M. Rech:—

Water ..	908.5
Albumen ..	80.3
Fatty matters ..	0.9
Sugar ..	1.8
Alcoholic extract and urea ..	2.2
Albuminate of soda ..	0.8
Salts ..	4.4

*Blood of Icteric Patients.*—Various chemists have examined this fluid in icterus, but the conclusions at which they have arrived are not uniform. Some—as Orfila and Clarion—believe that the blood contains the principles of the bile; whereas MM. Thénard and Lassaigne, who have devoted great attention to this subject, have been unable to discover these elements, either in the human blood or in that of a horse labouring under jaundice. M. Chevreul has found in the blood of infants, attacked with icterus and induration of the cellular tissue, various colouring principles—red, orange, green, and blue—and which appears to him to offer the properties of the colouring matters of the bile.

M. Thénard analysed the blood of an animal, into the veins of which bile had been injected, but he was unable again to discover its elements within that liquid: a fact which induced him to conclude that the matters of the bile become quickly altered or modified within the current of the circulation.

All observers agree in pointing out, in the blood of icteric patients, colouring matters similar to those which are found in the bile. The analysis of icteric blood further tends to prove in it a marked diminution of the globules.

According to M. Lecanu, it contains:—

	1st case.	2nd case
Water ..	828	830
Albumen ..	76	65
Salts, fatty, and extractive matters ..	14	8
Globules and fibrine ..	76	97

M. Denis found, as follows:—

Water ..	815.0
Albumen ..	53.5
Fibrine ..	9.5
Neutral salts combined with iron ..	4.5
Soda ..	1.5
Other salts ..	2.0
Neutral fatty matters ..	6.0
Colouring substances ..	14.6
Globules ..	93.9

Finally, M. Simon gives the following as the result of his observation:—

Water ..	770.0
Fibrine ..	1.5
Fatty matters ..	2.6
Albumen ..	126.5
Globuline ..	72.6
Hematine ..	4.8
Hemaphysine and biliphysine ..	2.6
Extractive matters and salts of biliphysine ..	16.5

*Blood in Cholera.*—The blood of patients affected with cholera is remarkable for its great plasticity; it has the appearance of currant-jelly, and its separation into serum and clot takes place very imperfectly. In a chemical point of view, it is especially characterized by the abundance of its fixed organic materials, together with the presence of a remarkable quantity of urea and a diminution of its soda.

M. Lecanu gives the following as the relation of water and of solid matters in the blood, in this disease:—

	1st.	2nd.	3rd.	4th.
Water ..	660	749	480	690
Fixed matters ..	340	251	520	330

Subjoined is a most complete analysis of the serum of the blood, in a patient labouring under cholera, by Dr. O'Schaughnessy:—

Water ..	854.0
Albumen ..	133.0
Urea ..	1.4
Fatty matters ..	1.4
Chlorides of potassium and sodium ..	4.0
Sulphates and chlorides ..	1.6
Extractive matters ..	4.8

MM. Reny, Marchand, and Simon, have also found urea in the blood in similar cases.

*Blood in Affections of the Heart.*—In these affections, the blood offers a remarkable diminution in the weight of the globules. This may be seen by referring to the following analyses, performed by M. Lecanu:—

	Water.	Solid materials of serum.	Globules and fibrine.
1st case ..	821.4	77.5	101.3
2nd case ..	880.4	77.6	41.9
3rd case ..	807.2	96.3	96.3
Mean ..	836.2	83.8	79.0

The above three cases all occurred in the masculine sex. The same observer has, likewise, noted down the proportions of these elements in the blood of women, when labouring under a similar affection:—

	Water.	Solid materials of serum.	Globules and fibrine.
1st case ..	873.4	86.1	40.4
2nd case ..	868.6	79.8	51.4
3rd case ..	866.6	89.6	43.7
4th case ..	877.5	77.0	45.4
5th case ..	845.1	85.8	69.0
Mean ..	866.2	83.7	50.0

These affections should then, in so far as regards the modification of the blood, be ranked by the side of chlorosis.

*Milky Blood.*—There are cases in which the blood assumes a milky appearance, owing to the fatty matter which is suspended in it. This phenomenon may often be observed in the bleedings adopted by some pregnant women as a matter of precaution, and generally in persons who, otherwise in good health, submit to venesection shortly after a meal and during the course of digestion. This peculiar condition of the blood is almost wholly connected with the serum, as will be found by the more or less milky appearance which it presents after the separation of the clot.



The following analysis will show us the composition of the serum of this kind of blood:—

Zanarelli.		Lecanu.	
Water .....	905	Water .....	794
Albumen .....	76	Albumen .....	64
Crystallizable fatty matter .....	4	Acidulated soapy matter .....	117
Non-crystallizable fatty matter ..	6	Cholesterine (1·08) .....	
Extracts and salts ..	10	Oléine .....	
		Margarine .....	
		Stéarine .....	25
		Extractive matters and salts .....	
		Hematosine ....	a trace

Trail has given us another analysis of the milky serum:—

Water .....	789
Albumen .....	157
Oleaginous matters .....	45
Salts .....	9

A condition analogous to the above may be readily induced in animals, by feeding them for a few days on fat.

M. Caventon has found this lactescence of the blood to be owing to a peculiar state of the albumen.

*Vinous-coloured Blood.*—M. Denis analysed some blood presenting this colour—a condition previously pointed out by M. Velpeau. It contained:—

Water .....	80·0
Free albumen .....	1·0
Free hematosine .....	6·0
Albumen	combined in the solid state..
Hematosine	
Salts, &c .....	1·0

*Blood in Albuminuria.*—In this generally grave affection, the blood maintains its usual amount of fibrine; but we find the proportion of the globules and that of the albumen rapidly diminish. Generally speaking, uræa is met with in remarkable quantity in the blood of persons labouring under this disease. The subjoined remarks are due to Dr. Christison:—

Water.	Fibrine.	Globules.	Solid matters of the serum.	Remarks.
863·8	2·8	57·4	76·0	Robust man, 55 years of age; urine very albuminous; the serum contained uræa.
844·1	4·4	57·7	93·8	
808·3	3·0	133·9	54·8	
831·9	2·8	111·1	55·1	The blood contained uræa. Complication of pneumonia and anasarca; the blood contained uræa.
836·3	2·7	104·6	56·4	
825·2	4·3	95·5	75·0	
859·2	8·2	75·5	57·2	
885·3	6·2	56·4	52·1	The blood contained uræa. Same.
862·8	3·2	72·1	61·9	
855·5	4·5	42·7	97·3	Woman; complication of chronic rheumatism.
862·6	8·5	72·8	56·1	
887·0	8·6	49·1	58·3	The blood contained a large quantity of uræa.
841·6	3·4	91·6	63·4	

M. F. Simon has, in like manner, performed some analyses for the purpose of establishing the composition of the blood in albuminuria:—

Water .....	830·59	826·89	823·46	830·70
Fibrine .....	7·05	3·06	5·00	3·50
Fatty matters ....	2·40	1·86	2·52	2·68
Albumen .....	103·69	100·43	97·01	63·40
Globules .....	40·15	41·30	54·09	71·30
Hematosine .....	3·81	4·38	5·10	4·91
Extractive matters and salts .....	12·35	13·28	12·62	11·38

The blood in all these cases contained uræa.

M. Simon especially notices that the relation between the globules and the hematosine is here much more marked than in other conditions: usually, the proportion is about 4 or 5 to 95 or 96; while, in this disease, we find it as 8 or 9 to 91 or 92.

*Purulent Blood.*—It is impossible to point out the presence of pus in the blood, either by chemical analysis, or by its microscopic characters, where the proportion of purulent matter is very slight, and provided it be perfectly admixed with the blood. In fact, the particles of pus offer the greatest outward analogy with the large white

globules which are met with in normal blood, sometimes in very small quantity, at others in much larger proportion, without the health of the individual appearing at all to suffer.

*Blood containing Animalculæ.*—On examining, by the microscope, the circulation in the tongue of a frog, I was surprised to observe, passing along with the globules of the blood, a living animal which, in its general form, resembled the *filaria*. After waiting a few instants, I distinctly discerned a second, which thus removed all doubt from my mind; and, by slackening the circulation, I was enabled to see the animalculæ for some time struggling in one of the capillaries comprised within the scope of the instrument.

MM. Gruby and Delaford also noticed this phenomenon, with the greatest clearness, in a dog. The entire blood of this animal, which appeared otherwise in good health, was filled with *filaria*, which must have existed there in myriads, if we may judge by the circumstance that not less than four or five of them were found in each drop of blood.

This condition is, however, rare; for, after examining the blood of many frogs and dogs, with the object of confirming this discovery, I have been able to meet with the above two cases only.

## ORIGINAL CONTRIBUTIONS.

### REFLECTIONS AND OBSERVATIONS ON INSANITY.

By JOSEPH WILLIAMS, M.D., &c. &c. &c.

(Continued from p. 381.)

“Nemo mortalium omnibus horis sapit.”

INSANITY VITIATES ALL ACTS.

The great fault in the present day, especially where young ladies are educated, is, that there is no recreation! It is true the girls are allowed, perhaps, for half an hour to walk arm in arm round a narrow plot of ground—being less indulgence and freedom than is granted to the very felons in her Majesty's gaols—but, as for recreation, amusement, exercise, it exists only in the name; these poor creatures, huddled together in rooms ill ventilated, and left only for the hastily-swallowed meals, are kept all day poring over books they can ill understand; the nervous system consequently becomes debilitated and irritable, and, as the physical energies are impaired, so does the mental vigour correspondently decline; whereas had half the time usually allotted for study been well employed and judiciously directed, and some hours in the day devoted to healthful sports and recreation in pure air, the impressions traced on the memory instead of being faint would be permanent, and health, happiness, and knowledge would be substituted for sickness, misery, disgust, and apathetic indifference. The fact also appears to be too common, that they are not taught to reflect or reason—nothing is done to raise the standard of the mind, to form the judgment; they are compelled to amass facts and out-weary the memory, but the analysis of these facts, and the just comparison of them with each other, are generally totally neglected.

Where there is great desire for distinction, and when ambition early develops itself, this must be checked, and, while ardour and emulation are not damped, contentment should be taught. Female education but too frequently consists of mere accomplishments, and instead of vanity, conceit, and ambition being discountenanced, these are tacitly encouraged by inducing a young lady to devote her whole time to those subjects alone which tend to make a decided impression upon the world.

To excite the feeling of envy or of rivalry is very injudicious, and is apt to encourage those bad feelings which so frequently increase as maturity advances. It is unnecessary to mention that idleness, trifling, procrastination, and indecision, must be in every possible way discouraged, while useful occupation, punctuality, and promptitude, together with fixedness of purpose and a proper degree of confidence, should be as strongly enjoined. Self-

esteem and vanity have been frequently mentioned as a constant cause, and even as a grand characteristic, of insanity; therefore, when these preponderate, they should be opposed by lessons of humility and of diffidence. Although an endeavour should be made to please others, yet in every way to attempt to satisfy a vain world, is only to sacrifice oneself; pride is far less injurious in its effects than vanity, but either when excessive is very pernicious. It is also important that a strong guard be put upon the temper, not only to prevent the outbreaks of anger or rage, but also the accession of peevishness and irritability. While it is so necessary that the emotions should be under due control, it is equally imperative to restrain the passions, and the greatest care should be taken to avoid anything even approaching to voluptuousness or sensuality. In short, all under tuition should be taught “to believe what is true, to love what is amiable, to do what is right, and to suffer what is appointed.”

In the present day the objects are numerous enough while under tuition, and in mere accomplishments the generality of young ladies are educated far beyond what is requisite or necessary for their station or grade in society, and this, together with love of fashion and dress, forms one of the great evils of modern society—in short it pervades all classes. As was aptly said in the lower House of Parliament, “people seem to be struggling to make things appear a little better than they are”; because such a friend gives expensive and luxurious dinners, we must do the same; and this error and folly is handed down from one class to another until the evil becomes fearfully magnified. It is the same with dress: the daughters of many an artisan attempt to appear in the same style as some favourite aristocrat, whom they may have observed in the theatres, at the park, or even in church. The materials they use may, it is true, be coarse, because their paucity of means does lay limits to the quality, but in the mode, the exact or even the hyperbole of representation is attempted; their minds being thus injured, their vanity excited, they feel raised above their station, and many a girl under such circumstances, while seeking admiration, has been misled and seduced by some artful flatterer.

Oh, wealth, honour, fame, cannot give that happiness which results from contentment; the cottage, lighted only by the blazing hearth, often fosters more peace and enjoyment than can be found in palaces. To know one's station, to feel therewith contented, and to be grateful for the mercies enjoyed, will give more peace than distinction, riches, or power.

Those errors of society, which every person must necessarily mix with, should be judiciously exposed, and their evils shown, for, if the mariner is previously made aware of the existence of the hidden rock, this is generally sufficient to prevent him from foundering upon it. At the same time there are evil and wicked machinations and designs, which as they but seldom expose themselves to public gaze, and, though miserably enslaving those still more miserable persons who are enslaved by them, are yet happily confined to the few, and those frequently only the offshoot of society; therefore it is unwise, it is prejudicial to the best interests of individuals and of the public in general, to expose and propagate, even in the way of caution, the more refined systems of vice, the more intensely devilish seductions of iniquity, and the more so, as no person ever can reach this climax at once; as there are numerous paths of virtue, so there are yet more numerous roads to vice, and few are so created as to become proficient at once; and, therefore, it is when sin is hurling down a young man headlong that the beacons should be brought prominently before him, to warn him of his danger.

Ask the shipwrecked profligate whence he derived his misfortunes, where he first imbibed his thirst for sin, where he drank deeply from its cup, and he will point to the theatre. The vain imaginations which were there fostered, the morbid and sensitive passions which were there roused, the seductive attitudes of sin, the alluring temptations of vice, and the fictitious honours paid to these by



their accomplished votaries, all prepared him to perpetuate in person those flagitious and sensual errors which have been the ruin of thousands.

"It would be endless to trace all the vice  
That from the playhouse takes immediate rise.  
It is the inexhausted magazine  
That stocks the land with vanity and sin.

"By flourishing so long,  
Numbers have been undone, both old and young;  
And many hundred souls are now unblest,  
Which else had died in peace, and found eternal rest."

The theatres may, indeed, be considered centres of vice, and the evils they entail on mankind are perfectly fearful; but the dangers resulting from masquerades are even worse, as numbers will transgress the rules of decorum and propriety when masked, who would vanish with shame did they think it possible they could be detected. This is one of the greatest evils of modern society in France; it equally affects the highest, the middle, and the lowest classes, and nothing will do more injury in this country than introducing masquerades. Domestic virtue will soon be assailed, and intrigue will be the substitute for conjugal affection.

Although gambling has not been yet mentioned, it is not because its consequences are less fearful than those we have previously noticed; the alternate hopes and fears, the ambitious anticipations and the disappointed expectations of the gambler, keep him in a perpetual whirl of uncertainty. The greater his excitement, the deeper the subsequent depression. His very hopes are only raised to make his fall the greater. Gambling, whether at the billiard-table, the exchange, or even at cards, should be discouraged; and, to initiate children into the spirit and zest of this fearful vice is highly reprehensible.

In France, formerly, more men became insane than women; but, of late years, the number of females has considerably preponderated. Nor is this to be wondered at when we look at the low state of morality, the precocious desires, the consequent excesses, the thirst for luxurious indulgence, the constant excitement from reading intriguing novels, attending masquerades, visiting the opera, theatres, balls, and other places of amusement: all these together, without any rest, without any cessation, tend to turn the brain, and literally to drive them out of their senses.

The late hours which are now so common are very prejudicial. Wisely was it ordered that the night should succeed the day; but man is now attempting to make the day succeed the night. The very darkness has its effect upon mankind, and is most salutary in removing or preventing those various objects of excitement, or the natural stimuli, which are presented to the senses throughout the day. Sleep is to the mind what rest is to the body. Observe the man who has been up all night: he is found hot, feverish, parched; but the accustomed hour of repose arrives, he yields to slumber, and in the morning wakes refreshed; but should it happen that mental excitement has supervened, or that, from any other cause, sleep is withheld, his symptoms become aggravated, and, frequently, he either gets an attack of fever, or an irritable state of the system is induced, with nervous irritability and restless watching at night, and the habit of vigilance once formed is with difficulty removed; it is a state which should never be neglected, and medical advice should always be resorted to on its earliest approach; many cases of insanity may be entirely prevented by procuring sound and refreshing sleep.

The habit of castle-building ought to be discouraged in every possible way; and day-dreaming of every sort should be banished immediately it is perceived, or the mind will get into an unhealthy mode of thinking. If literary exercise is not sufficient to dispel these ethereal phantoms or reveries, amusement or cheerful occupation should be resorted to. Whenever a person finds an idea constantly forcing itself upon his imagination, he must throw it off in occupation, either by thinking of, or reading, history, geography, travels, poetry, or else engaging in conversation or amusements. The mind becomes weakened when any idea is constantly thrust upon it, and becomes, consequently, incapable of forming a correct judgment, as was strongly exemplified in the South Sea bubble, in

the Canal enterprises, and, more recently, in Railway speculations.

Fortune-telling often produces the most injurious consequences, especially when the mind is weak; such persons are continually looking for a confirmation of the gipsy prediction, and the ruin of not a few may be clearly traced to this superstitious, and but too frequently, to this demoralizing practice. No female should ever be encouraged or even permitted to be subjected to such a baneful and barbarous influence.

The daily habit of devoting even a small portion of time to intellectual subjects will be found no contemptible means of checking morbid fancies, and, amongst those classes where physical labour is not necessitated in obtaining daily sustenance, mental employment is the more necessary.

At the same time that due attention is given to increase the habit of reflection and to elevate the mind, great care should be taken to strengthen the body. Occupation is necessary for all, whether the peer, the peasant, or the artisan, but it is especially essential for youth, where that restless activity characterizes every thought, word, and action. Every person should always have some object in view, something to do; an idler never was, never can be, happy—ennui, who can describe its horrors?

Some persons when idle, and without occupation, become insane in many of their acts: this is not unfrequently seen in officers who are on half pay, in authors who have finished their labours, in merchants who retire from business; and not a few suicides can be referred to such a cause. People retiring to the country often become eccentric; the restraints of society ceasing to act on them, they dress, walk, talk, and act in a manner which would have excited their astonishment and wonder but a few years before. Misanthropic retirement or seclusion is bad for man, who is a rational being and is made for conversing with his fellow-man.

When an individual has suddenly given up any pursuit, and begins to feel lonely, melancholy, restless, and suspicious, he should lose no time in devoting himself to some study or pursuit in which he feels interested; and, should this not be practicable, he should travel. It matters not what is the occupation, provided the person is interested in it; and a farm, county business, or a seat in Parliament, may each be the most suitable in individual cases; but directly the person's attention is occupied and drawn off from himself, the mind again becomes vigorous; if such precaution, on the contrary, be neglected, the most unfortunate of all human ills may result.

Exercise and physical exertion are most important, as is daily evidenced even by the insane themselves; and a curious exemplification of its beneficial effects was instanced in the priest Bourdaloue, who never could preach until he had previously danced and fiddled out his humour.

Where a person holds false impressions, we should endeavour to remove them, by substituting our judgment for his, and if possible by convincing him of the truth and justice of such judgment, proving it by analogy and comparison; taking especial pains to check anything like mental excitement; and, where the mind is inclined to ramble, taking care that some definite and fixed object is as much as possible kept in view—it being very important to fix the attention wherever there is a disposition to wander; and, even when in ordinary conversation with such an individual, it is necessary to bring him back to the point whence he strayed, and to supply his defect by collateral assistance; by, in fact, preceding him in the proper path. It is a great point not to permit a man to talk nonsense, or to reason falsely; this may be controlled, and although it is impossible to restrain the thoughts, yet the ideas may generally by judicious management be directed.

There is often noticed a great rapidity of thought; the mind is constantly roving, and cannot be fixed for a few minutes upon any subject; this ought to be checked, and should not be overlooked. The study of mathematics, or of any of the exact sciences, should be strongly recommended, even although so much disliked by persons of weak mind, and especially by those predisposed to in-

sanity. The habit of mental application should be encouraged; Dr. Conolly states, that the registers of the Bicêtre indicate that maniacs of the educated classes consist almost entirely of priests, artists, painters, sculptors, poets, and musicians, while no instance occurs of the disease in naturalists, physicians, geometricians, or chemists.

The study of mathematics has been known to cure insanity—and is in some cases worthy of trial, even where there has been no previous instruction in this branch of science. Where insanity occurs in middle age, great care should be taken in inquiring as to the previous pursuits, habits, and studies, in early life, and by judiciously selecting such subjects as may now be agreeable, we may sometimes succeed in drawing off the patient's mind from his delusion.

The study of a new language may sometimes be recommended, and, indeed, in some instances, it might be of great advantage not only to remove a patient from home, but to place him under the care of a physician who would never converse with him but in a language he would have to acquire, care being taken that he was excluded from conversing with any person who spoke his own tongue, and that the servants who surrounded him were similarly instructed. This plan could not, of course, be carried out in an asylum, but is quite practicable in some instances in private practice; even then it should only be attempted under the sanction of the friends, as it is easily conceivable how wide a door of fraud and iniquity might be opened without some efficient and powerful check being interposed.

If madmen must be mixed up together, and for the greater number of them, including paupers, I do not see how it can be avoided, the most complete system of classification should be established; but, where the circumstances of a patient will admit of it, he will be placed in a far better position when mixing with those who are rational, rather than with those who are insane. If classification be important in all stages, it is doubly so when convalescing, for, as was previously stated, how dreadful for a convalescent to see madness in every form around him!

I am aware that evils are connected with the cottage system, and that these have chiefly arisen from the ill treatment by the hired servants or keepers; but my present object is not to compare these with the horrors of the madhouse, or to justify one at the expense of the other, although I am convinced, bad as both have often been, that the most diabolical, the most brutal, and the most neglectful treatment has occurred in the madhouses, where the poor patients have often been found in underground cells, in which no gentleman would place neither his dogs nor even his swine.

The cottage system has very many advantages, but it requires upright and conscientious persons to superintend those placed under their care; the reception into a private family is, upon the whole, liable to the fewest inconveniences.

I cannot conclude without again drawing attention to the importance of at once putting a stop to the TRADING IN LUNATICS. I wish strongly to urge on all who are philanthropically inclined the vital importance of this subject. Malice does sometimes cause an individual to be improperly detained in an asylum, but this is not of frequent occurrence; whereas selfish motives—interest—have caused the incarceration of thousands. Remove the temptation, take away the PROFIT, and the evils will be at once diminished a hundred-fold.

Let all lunatic asylums be under the direction of Government, paupers being paid for by their respective counties, and those in humble or more affluent circumstances paying in proportion to the accommodation, the comfort, or the luxuries required; let no fee or emolument whatever be given to any of the establishment, as they should derive their income or salaries from the Government, to whom they should be responsible.

A certain number of attendants or nurses, both male and female, should be educated at these establishments, who would be ready, on proper application, to go out and attend those cases for which their assistance was required. Even here it would be unwise to allow these attendants to derive their



means of support directly from the patient, but they should receive a reasonable allowance for their services from the State; it being only just, and at the same time judicious, to increase their salaries for good conduct or prolonged service.

Responsible attendants are very much needed, and persons of some education, and of a higher grade than those at present to be met with, are very necessary. I am persuaded that moral means are much more useful than even the apprehension of physical intimidation or coercive restraint, and I am equally certain that confinement in a mad-house is often apt to render chronic those symptoms which would otherwise be only temporary, and I would never send a person to an asylum, when he could afford to live out of it, unless he was dangerous to himself or to others, and not even then except when the symptoms had become chronic—the disease confirmed.

It may be said that there would be great difficulties to overcome before the public would be sufficiently enlightened as to enable or urge the Government to undertake the responsible charge of superintending lunatics; but, if the evils connected with the system as it exists were more minutely detailed and more diffusively circulated, the public mind would soon be alive to the necessity of a speedy alteration. We, as Englishmen, are humane; we, as Englishmen, are rational; we can hear reason, we are anxious for the investigation of truth; we are most desirous to see justice, happiness, and contentment pervade all classes; and it is a characteristic—a grand characteristic of this country—to shake off anything like oppression. Freedom is our watchword; if, then, so anxious that we should ourselves have liberty, why should we allow a lunatic to bear a heavier yoke of oppression than is to be met with throughout the land? Why should we permit those from whom Providence has in wisdom removed a portion of their reason to be treated worse than brutes, degraded more than felons? Those who demand our greatest sympathy, who are unable properly to take care of themselves, are but too frequently left to the tender mercies of hirelings, who, having been accustomed to such scenes of woe and of ill treatment, are doubly hardened.

To this day it is but too common, that, when a patient becomes maniacal, an application is made to an asylum, two or three keepers are sent, who would themselves be more than sufficient to restrain the excited man, if they possessed prudence or judgment; but they prefer the easier mode of coercion, intimidation, and force, and place a strait-waistcoat with sundry straps to guard against the occurrence of any danger, which might have been equally well prevented by increased vigilance.

I feel convinced that it is only necessary for the people of England to know of the evils connected with the treatment of lunatics, to know of the abuses connected with the system, to know of an effectual way not only of checking but of almost altogether preventing the many enormities which have been detailed, and with such knowledge, possessing such information, and with philanthropic zeal, they would as with one voice demand not only the inquiry, but the remedy for so much abuse.

This is no party question; it is for the benefit of the community at the expense, or probable loss, of the proprietors of lunatic asylums. It is a question from which no senator should shrink, for he himself, ere a few months more have passed away, may be numbered amongst those who require protection. But, should the Members themselves feel any apathy respecting this momentous question, the information which may be spread by faithful and well-digested articles, and by lecturing at the various scientific institutions throughout the country, will so stimulate the people that they will cry out aloud for justice; and be it remembered that such an appeal is never made in vain. And here there is no prejudice to remove, no weakness to combat: all that is wanted is to afford information, for there is a general ignorance throughout the country upon everything connected with lunacy. And this arises from the fact, that persons who have lunatic friends never speak of them; they—shall I say it?—banish them; and so it happens that even

those the most interested in such inquiries utterly neglect them. But because friends leave their suffering relatives to the tender mercies of keepers, or those having no special interest in them, that is a double reason why the Government should take care that efficient aid and kind treatment are ensured to those helpless beings who are so much neglected.

I very much prefer that these Institutions should be under the control of Government, rather than be directed by a Committee of Proprietors; and, without at present going farther into the matter, I content myself with stating that, if for no other reason, yet it is desirable on account of the uniformity of system and regulation which would then result, for I very much question whether it would be possible within twenty years to establish proprietary institutions universally throughout the land; but the moment a bill had passed, enabling the Government to assume the control and direction of all lunatic asylums, then the amelioration would very soon commence, and, within a short time, the poorest lunatic pauper would begin to benefit.

It may be said, how much improvement is already taking place in the care, comfort, and treatment of lunatics; but, while I rejoice in the fact, yet I see in it the encouragement to go on. The conciliatory system has already proved what may be done, and Hanwell should be taken as the model establishment; thither should all those hard-hearted sceptics be sent, who advocate restraint, to see in the absence of buckles and straps, and other apparatus of torture, that the patients become more as one family, that they engage in useful occupations, and even disseminate by the printing-press, curious and useful information; but such harmony—such contentment—may I say, such enjoyment?—in no way alters the opinion of these prejudiced and cruel individuals; they see nothing in the improvement, both mental and physical, of those unfortunate patients who had formerly for years been subjected to complicated restraint, but who now are allowed liberty; they think nothing of the fact that a few individuals who were sinking into dementia have, since they were divested of restraint, become talkative and lively; their prejudice, indeed, is such that nothing can convince them.

8, Tavistock-square, London.

#### MEDICAL REPORT ON THE USE OF THE PIPER ANGUSTIFOLIUM MATICO.

By ROBERT HARTTE, M.D.,

Fellow of the Royal College of Surgeons of England; H. P. Deputy-Inspector-General of Army Hospitals,

My druggist of London kindly sent me some of the Piper Angustifolium Matico, accompanied by the third edition of Doctor Jeffery's (of Liverpool) remarks on the efficacy of this Peruvian styptic. It fortunately arrived at the time that a most malignant dysentery was prevailing in this town. The disease was ushered in with pyrexia and the most malignant concomitant symptoms of the malady, accompanied by profuse hemorrhage from the bowels, with extreme relaxation of the sphincter ani. In some of the cases tenesmus was distressing, while in others there was no pain whatever; yet, in all, the blood was constantly and profusely streaming from the rectum, while the anus was extensively dilated.

The Spaniards, aborigines of the island, call this disease when it assumes such a malignant type, with dilated anus, "bischeo"; and they solely depend, as a restorative, on the use of lime-juice taken as lemonade *ad libitum*, clysters of lime-juice and water, baths of the same; and the dilated anus is plugged with a lime which is nicely peeled, then cut round, from the core, inverted, and introduced into the rectum; no inconvenience, pain, or difficulty, attends the introduction of the lime, for the sphincter ani appears to have lost all sensibility and power of contracting, for as fast as one plug is ejected, another is immediately introduced. The first patient I had, suffering under this malignant type, was a youth seven years old, son of a merchant in this town. My preliminary treatment consisted in cleansing out the primæ

viæ with an infusion of radix ipecacuanha, and immediately after I commenced the lime-juice treatment (until I could obtain my matico from the vessel), which I persevered in until the fifth day; when, finding that my little patient was losing ground, that the hemorrhage was increasing, and that the dilatation of the rectum was more alarming, I instantly commenced with an infusion of the matico (one ounce to the pint of boiling rain-water), and gave a table-spoonful every third hour, and a clyster of two ounces of the same infusion one hour after he had taken each dose of the infusion. His recovery was rapid; and a few days after he became convalescent, he quitted this place with his parents, and arrived in England in perfect health.

The next I had was a child of eight months old. The symptoms were in all respects the same as I have already stated with the difference of pain; the first case had very little, and that without tenesmus; this infant suffered severely whenever he had the inclination to stool, yet nothing was passed but blood. In this case I began with the infusion of ipecacuanha, and as soon as the little patient had recovered from the effects of the vomiting I commenced with the infusion of matico, in doses of one teaspoonful every two hours, and one ounce of the same infusion to be injected into the dilated anus one hour after taking each dose. The change which took place in the malady in twelve hours was far beyond my most sanguine expectations. The sphincter ani had recovered its sensibility and contracting power, and the child is now in perfect health.

I have chosen to give the summary treatment of these two cases because they were my first, and, again, they were children; yet I must state that I treated in like manner (with the matico) every case of this malignant malady that came under my care, and it is with satisfaction that I report its proving successful in every instance.

Two cases of wounds came under my care.

Mr. J. Coune.—This man received, by accident, a severe wound from a large iron wheel falling, the edge of which divided the scalp on the lower and front part of the right parietal bone, dividing a branch of the temporal artery, which caused a profuse and alarming hemorrhage; the mouth of the vessel was so visible that no trouble could have attended the taking of it up, but it was too good a case to allow to pass without giving a trial to the matico; and accordingly I applied a piece of a leaf (a) to the mouth of the vessel, and pressed it closely for some time; on removing my finger, I found the bleeding was arrested; I remained for some time before I dressed or banded it, no bleeding took place, and in nine days the wound was healed and the man returned to his work as a blacksmith.

Mrs. Murser.—This woman accidentally received a wound on the thick part of the thumb, two inches long; when she came to me the wound was bleeding most profusely from two small arteries, which I could very easily have taken up, but, as I was anxious to give the matico another trial, I immediately applied a piece of a leaf (a), which covered the mouths of both vessels, and, pressing the edges of the wound on the leaf for a few moments, the hemorrhage ceased; I then put a strap of adhesive plaster round the hand and wound, leaving the piece of matico in the wound. On the fourth day I opened it, when I found the piece of leaf detached, and the wound uniting generally; on the ninth day it was completely healed, and now (three weeks since) it continues so, without any inconvenience.

I beg leave to assure you that I shall continue to avail myself of every opportunity of using the matico, and I shall have much pleasure in communicating my observations, with sanguine hopes that this Peruvian styptic will be found a most useful and valuable remedy in our army hospitals.

(a) I must particularly mention that the under side of the leaf is the part to be applied to the bleeding vessel.



# PROFESSOR SYME AND THE EDINBURGH INFIRMARY.

SIR,—In reference to the above, and to my letter of last week relative thereto, I have now to inform you that an amicable arrangement has since taken place at a public meeting, on a suggestion by Dr. Christison, approved of by the contributors to the infirmary, and agreed to by Professor Syme, "That no physician's clerk, or surgeon's clerk, shall receive from the managers a certificate at the termination of his services, unless he shall have produced monthly, during the whole period of his services, an attestation by the medical officer under whom he has acted, signed on the last day of every month, in a book to be kept for the purpose, that the duties of the office, including the keeping of the case-books, have been discharged to his (the superior medical officer's) satisfaction, and to the credit of the hospital."

On this, after one or two individuals had spoken, Lord Ivory remarked that, when this difference originated, there was a certificate from week to week (insisted on by the managers), reports of the cases were drawn up by the clerks, and the professional character of Professor Syme was pledged to all these reports being correct. Now, they must observe, that was very different from what was now proposed. It was a very different thing to call upon a practical man to adopt, as his own, the statements made by another, and to authenticate, by his signature, facts which took place during the twenty-three hours of his absence, as if they actually had occurred under his own view. This was what no man authenticating a matter of fact would consent to. It was now, therefore, proposed, that at the end of a stated period, the medical officers ensure the accuracy of the clerk, by giving a certificate that the clerk, in that respect, as in every other, had given satisfaction to the practitioners, which certificate was understood to be one of belief, and not of fact. He would have the managers to pause before they considered it as held that a practitioner, in adopting this resolution of Dr. Christison, was adopting the previous regulation, that the certificate was to be a certificate of fact, and not a certificate of belief. He sincerely hoped that it would be in this sense, and in no other, that the matter would be understood.

After a few words from Sir James Gibson Craig and others, it was agreed that the contributors approve of the arrangement. And thus terminated this affair, after nearly two years' angry discussion. The managers, we dare say, are thoroughly glad at having now got this matter off their hands; and the public, as well as the profession, will not be dissatisfied with an arrangement which puts an end to the appearance, at least, of an unseemly coercion on the part of annually elected managers—as yet without any cause shown—and which had well-nigh deprived a public institution of an able surgeon, and disgusted not a few with the total disregard shown towards the feelings of men deserving far otherwise at the hands of the public.

For the profession in general, and hospital surgeons in particular, we conceive them not a little indebted to Professor Syme for the example shown on the present occasion.

AN OLD INFIRMARY PUPIL.

Banks of Lochleven, Jan. 23.

[From the Scotsman, Jan. 13.]

We publish the following letter at the request of Professor Syme:—

TO THE CONTRIBUTORS TO THE ROYAL INFIRMARY.

MY LORDS, LADIES, AND GENTLEMEN,—As it does not appear from the newspaper reports that the grounds of my objection to docquet cases kept by clerks in the hospital were explained at the general court of contributors to the Royal Infirmary, I beg to submit for your consideration the following statement:—

The record of a surgical case comprises a description of the condition requiring relief, and an account of the circumstances which gave rise to it, together with reports as to the effects of remedial treatment. In most of the cases resulting from external violence, which constitute a large

proportion of hospital surgical practice, it is only when the patient first comes under observation that the precise nature and extent of the injury can be ascertained. For instance, when a fractured limb is brought to the hospital, it is only the person who examines it at the time and applies the requisite bandages who ought to know for certain that the bone is broken, and the part where it is broken. I say ought to know; because any subsequent examination could not be made without causing pain, which might have been avoided, and would tend to delay the healing process, besides exposing the patient to the risk of more serious consequences. In the progress, too, of many surgical cases, changes are apt to take place not only from day to day; but from hour to hour, and, as they often admit of being recognised only at the time of their occurrence, must generally rest upon the authority of him who has an opportunity of witnessing them; that is, the clerk appointed by the managers, to whom, in their own words, the surgeon "intrusts, for twenty-three hours out of the twenty-four, the important and responsible duty of attending to the treatment of his patients."

But in many cases the previous history is of even more consequence than the detail of existing circumstances. Thus, there is at present under my care in the hospital a woman suffering from what is called an aneurism, caused by the wound of a large artery below the knee. It is of great importance, with a view to determining a disputed point in surgical practice, that the precise way in which this wound was inflicted should be ascertained. My clerk has written a "history," which he believes to be correct, though quite at variance with the patient's statement; and I delay forming a decided opinion until further information is obtained. Now, suppose I were to arrive at a different conclusion, and that the case were to be published, or become the subject of judicial investigation—the case-book having been docquetted weekly according to rule, it would not be pleasant to commit to the press, or state in a court of justice, a different explanation from that which I had certified to be correct. At the same time, with all deference to the legal authority of the learned gentleman who addressed you on the late occasion in defence of the managers, I venture to assert that the hospital journals never were, and, however carefully docquetted, never could be, admitted as evidence in a court of justice. They are merely to be regarded as notes for refreshing the memory of practitioners concerned in treating the patients; and accordingly, in all hospitals, have hitherto been intrusted to the discretion of the medical officers.

The summation of figures, when completed, must be either right or wrong, and admits of being verified beyond the possibility of question. But the cases of a journal, consisting as they do of opinions, hearsay reports, and observations, of which the value depends entirely upon the character of their author, do not admit of any such authentication. Indeed, to illustrate the futility of attempting this, I showed the managers that one of their clerks had interpolated reports for a purpose of his own, a month after the journal had been docquetted by his principal.

The "docquet," accordingly, so far as I know, has no precedent or parallel in any other hospital of Great Britain, and in the Royal Infirmary was never enacted until the 18th of March, 1844. The regulation then passed required a weekly expression of opinion "as to the manner in which the cases have been kept." To this I objected, that, if disapprobation happened to be deserved, its public expression in the way proposed would tend to disturb the good understanding and mutual confidence essential for the proper discharge of their duty by a non-resident surgeon and a resident assistant. The managers then expressed their willingness to be satisfied with authentication, and to this proposal I again objected, on the ground of its being inconsistent with my regard for truth to certify the accuracy of cases kept by any other person than myself. The *Senatus Academicus*, in reply to a communication from the managers, then advised me to comply so far as possible with the regulation, and in order to do so I resolved to dictate the subjects of my docquet; but, as this of course would

effect a complete revolution in the system of keeping cases, I expressed my intention upon the first page of a new journal, which was laid upon the managers' table at their next and each succeeding weekly meeting. Eighteen months having elapsed without any remark on their part, I felt it my duty to request that they would compare the fruits of the old and new system, by examining one of the books kept in my department previous to the docquet regulation, a model of fulness and regularity, and another written from my dictation, necessarily hurried and meagre, in consequence of the various engrossing cares attendant upon an hospital visit. The result of this comparison, proving very disadvantageous to the new system, was attributed not to its injurious influence, but to a want of good faith on my part in carrying the plan into effect.

Now, I am prepared to prove that, since the new system was introduced, there has been a marked deterioration of the journals in other departments of the hospital, and, as to the imperfections of my own cases, I can only repeat, that, by insisting upon the docquet, "the managers placed me in a position which necessarily subjected me to their censure, unless I forfeited my self-respect by doing what I felt to be inconsistent with a conscientious regard for truth."

It was stated by the President of the College of Physicians, that even in the Medical Clinical Wards, where the clerks are entirely under the control of the physician, with whom the power both of their appointment and dismissal rests, and where the cases consist chiefly of details as to symptoms falling within his own cognizance, he has not been able to docquet the journal without "a mental reservation." How far the managers of the Royal Infirmary are warranted to enjoin upon their medical officers a duty which so much more in my case could not be discharged without affording the students of a liberal profession the dangerous lesson of systematically tampering with truth, I leave the contributors to determine.

When appointed to the Chair of Clinical Surgery (1833), I had succeeded in establishing a Surgical Hospital independent of the Royal Infirmary. It had existed for four years with progressive prosperity; more important cases were treated in it than in the Infirmary; and the amount received from contributors had nearly approached that derived from a similar source for the old institution. The *Senatus Academicus* had given their sanction for my lectures being delivered in this hospital, when the managers of the Royal Infirmary offered a certain number of beds for the accommodation of my cases, with the prospect—I am sorry to say not fulfilled—of future increase, and thus induced me not only to relieve them from the formidable rival which had sprung up at the door, but to carry with me to the Infirmary a large class of students, who, in order to attend my lectures, had in the first place to pay a fee for admission to that establishment. For, while many of my colleagues, as the professors of Botany, Anatomy, and Natural History, have the most ample and complete provision of what is requisite for the instruction of their pupils supplied to them at the public expense, I am in a position which prevents any gentleman from attending my lectures until he has paid £5 8s. to the funds of the Royal Infirmary. As it is the character of the clinical instruction which determines the reputation of all the great continental schools of medicine, I am naturally desirous to do whatever may be in my power to attract students to Edinburgh. But under present circumstances it is very plain that few gentlemen, except those who commenced their studies here, will be induced to enter my class, since they could not do so, even for three months, without paying the hospital fee for a whole year. How far the managers are warranted to deprive me of the means of teaching, even upon these unfavourable terms, on the ground of my resistance to a regulation which did not exist at the time of my connection with the hospital—which was established without my concurrence—which directly interferes with the discharge of my professional duties—which, so far as I am aware, has no precedent or parallel—and which I have distinctly declared to be inconsistent with my sincere conviction of what



is due to conscientious regard for truth—is another question which I leave the contributors to decide.

I have the honour to be,

My Lords, Ladies, and Gentlemen,

Your most obedient servant,

JAMES SYME,

Professor of Clinical Surgery,  
and Dean of the Medical Faculty in the  
University of Edinburgh.

## PROGRESS OF MEDICAL SCIENCE.

### France.

#### ACADEMY OF SCIENCES.

Meeting of Feb. 8; M. BRONGNIART in the Chair.

##### ETHEREAL INHALATIONS.

M. Leroy d'Etiolles stated, in a written communication, that he had employed with success the new method in several cases of lithontriptic operation. Contraction of the muscular coat of the bladder is, it would appear, prevented by the influence of the inhalation.

M. Flourens read an account of some experiments he had made with reference to this subject. The spinal chord was uncovered in several animals placed under the influence of ether, and that organ remained insensible throughout the operations.

M. Roux regretted the improvement which surgeons and mechanicians were attempting to make in Jackson's apparatus, by endeavouring to render it more portable. They only succeeded in making useless playthings: the capacity of the phial should be greater than that of the instruments at present before the academy. M. Roux, in rising, had also the intention to obtain from M. Magendie the explanation of some expressions contained in an article the learned member had sent to the *Journal des Débats*. M. Magendie had said that "deplorable accidents had occurred from the use of ether." M. Roux knew, for his part, of no such accidents; and M. Magendie would, doubtless, consider it his duty to mention those which had come to his knowledge.

M. Magendie had seen a great many persons who, after the inhalation of ether, had suffered from intense headache. Some operations performed in the state of unconsciousness produced by the ether had been excessively painful; delirium had also been observed. M. Magendie did not deny that pleasant sensations were occasionally experienced. He had seen a woman who, after two minutes' inspiration, expressed pain by tears and cries; but she gradually fell into an extremely agreeable state, indeed, far too agreeable to be detailed in the presence of so numerous and so serious a meeting as the present. M. Magendie would mention a case: it was that of a man who came to the hospital for the purpose of having enlarged tonsils removed by an operation, which is generally of so simple a nature that the patient can walk home after it has been performed. The man inhaled ether: blood passed into the trachea and bronchi, and cyanosis followed, attended with cries and syncope; the patient was detained forty-eight hours in the hospital; and M. Magendie would ask, what benefit he had derived from the new system?

M. Velpeau, in reply, said that a case of death had been recorded: it was that of a woman who had inhaled the ether. After operation she presented nervous symptoms, and erysipelas: she died. But surely it was not the fault of the ether. No one had ever asserted that the inhalation prevented the accidental consequences of operations. The case of excision of the tonsils was one which belonged to M. Velpeau himself. The patient was never in any danger, and had not even any febrile excitement. Syncope had, it was very true, occurred, but that accident might have been the consequence of any other operation performed under ordinary circumstances.

#### ACADEMY OF MEDICINE.

Meeting of Feb. 9; M. BEGIN in the Chair.

##### INHALATION OF ETHER.

M. Cloquet presented a new apparatus of his own invention.

M. Gerdy observed that in several persons the inhalation had produced a headache of several days' duration; and mentioned a case of M. Jobert, in which death had followed the inhalation, and seemed, in some measure, to have been produced by it. M. Gerdy added, that it was not necessary to carry its effects as far as sleep; and inquired if it would not be possible to prevent pain during operations, by the exhibition of the various narcotics contained in the *materia medica*?

M. Amussat laid before the academy the results of his experiments on animals. He stated that during inhalation, when insensibility was produced, the arterial blood became quite dark, and resumed its florid colour when the unconsciousness was dispelled. In animals who had died during inhalation the blood was found of the same colour in the heart, veins, and arteries. In a rabbit, rendered insensible by the inhalation, a lighted match was approached to the nostrils, and no inflammation or explosion of the gases took place. The anatomical alterations observed in the animals who were killed by the inhalation were, distention of the heart from accumulation of dark blood in all its cavities; congestion of the lungs, liver, and kidneys; the spleen remained natural; and the brain betrayed signs of hyperemia in some cases. The cerebro-spinal fluid always appeared to M. Amussat to be diminished in quantity. M. Amussat then mentioned three cases in which he had operated on the human subject during ethereal intoxication.

Meeting adjourned at half-past five.

#### PARISIAN MEDICAL SOCIETY.

Meeting of Feb. 10; Dr. SHRIMPTON in the Chair.

##### MERCURIAL APPLICATIONS IN SMALLPOX.

Dr. Olliffe read a paper on this subject, and recommended strongly the application of the unguentum hydrargyri for the purpose of preventing pitting after variolic eruptions. Dr. Olliffe recorded an interesting case in support of his opinions.

##### EFFECTS OF COLD ON THE HUMAN SYSTEM.

At the beginning of the year 1846, a column of 2,800 men left Constantina for the purpose of chastising some rebellious Arab tribes. Dr. Shrimpton was the surgeon of this small army, which suffered more from the effects of cold than from the enemy's fire. It was an account of the facts observed which Dr. Shrimpton now laid before the society. The effects of the cold had been so severely felt by the men that 118 died from a few hours' exposure to a temperature of 28° Fahrenheit: Dr. Shrimpton did not think that the intensity of the cold was the true cause of its injurious effects, but its state of dryness or moisture. In illustration, the essayist compared the celebrated retreat of Moscow, during which the temperature varied from + 4° to - 22° Fahrenheit (- 20° to - 30° Cent.); the army being exposed to its influence during six weeks, and still a notable proportion escaping. With the expedition of Bon-Habeb, during which the thermometer did not fall below 25° Fahrenheit (- 2° below 0 Cent.), the troops being exposed thirty-six hours, and losing 203 men out of 2,800, whilst 2,350 suffered from the symptoms of asphyxia, and the remaining 242 were incapacitated during three months from returning to active service. In explanation of these frightful results from apparently inconsiderable exposure, it was necessary to recollect that in Africa the transition from heat to cold had been sudden, and that many of the men were under the weakening influence of endemic disease. The victims complained neither of hunger nor of thirst. The vital powers gradually diminished, the secretions were suspended, the circulation slackened, and, reeling as if intoxicated, they fell and expired without a struggle. The mode of action of cold on the living body, Dr. Shrimpton referred to asphyxia from the inability of the lungs to continue the performance of their all-important function; and endeavoured, by consideration of the local effects of cold on a limited part of our organs, to throw some light upon its general action on the body. The nervous influx appears to be first suspended, and the result is an immediate change in the accomplishment of the functions of circulation, secretion, and nutrition. In an interesting pamphlet, published a short time previously on the surgical facts connected with this disastrous expedition, Dr. Shrimpton

mentioned the results of his operations on those who had suffered from the effects of cold:—Of 44 cases of amputation, one only terminated fatally—a circumstance sufficiently eloquent to require no commentary.

#### FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

The natural fluids of the body—blood, mucus, bile—are also internal stimulants; the same may be said of the results of morbid secretion, such as pus; of pathological products, such as tubercle, cancer, entozoa, calculi, &c. The virus of syphilis, of smallpox, measles, &c.—that great unknown of an important medical problem—that algebraical x, the existence of which we must admit, although we still remain ignorant of its nature—the morbid poison by which these various diseases are produced—is also an internal stimulant of a special nature. Innervation is also a source of internal excitation, by which the various organs are stimulated to the accomplishment of their functions: it is also the cause of muscular contraction. With regard to that property possessed by certain muscles of contracting when touched with a stimulus, after their separation from the body—a property called by Haller *muscular irritability*—the power of nervous influence over it, has been recently proved by interesting experiments due to Dr. Longet. Muscular irritability has been shown by these ingenious researches to depend on the nervous twigs emanating from the sympathetic system, and from the intervertebral ganglia, which serve, in a great measure, to keep up the integrity of the functions of nutrition. These small twigs accompany the nerves of sensation, and, therefore, it is that division of these nerves which seems to destroy Hallerian irritability. The nervous system regulating, at the same time, motion, sensation, and nutrition, it follows that three varieties of internal stimulation are produced by its influence. Each of these stimulations can be separately modified in disease, but the isolated modification of any one of them often brings on change in both the others; thus, paralysis of motion in a limb not unfrequently brings on in the same limb loss of sensation, and an alteration of nutrition. In the heart we find increased motion often productive of exaggerated nutrition; in the stomach we occasionally meet with dyspepsia, resulting from mental anxiety; and we can often trace cancer of the orifices of the viscous to the original modification of the nervous influence which regulates its sensation.

The exercise of our functions not unfrequently becomes the cause of internal excitement. Thought stimulates the brain; our feelings, the organs of sense; the latter also become sometimes excited, sometimes, on the contrary, blunted by repeated use. Digestion produces local and general excitement; the simple fact of the introduction of nutriment into the digestive organs causes secretion of saliva, gastric juice, bile, and pancreatic fluid; it causes blood to fill the gastric and intestinal capillaries, and stimulates afterwards the skin, heart, and brain. Not only does digestion throw the excitability of the system into play, but also circulation, respiration, and secretion, and those excitations which during health are, as it were, unperceived and productive of no symptoms; in disease on the contrary, they cause morbid manifestations.

The chemical phenomena, which are continually in a state of activity within our organs, produce disengagements of heat, and are also internal sources of excitement. Thus, both within and without our body, numerous causes call into action the aptitude to receive impressions which, in a more or less lasting manner, increase the activity of the vital phenomena.

These causes may act only as physiological stimulants, and may not occasion any deviation from health, or, becoming pathological stimuli or irritants, produce disease. Internal stimulants propagate their action by four channels from the part which bore their first impression, to the rest of the system—1, continuity of tissue; 2, innervation; 3, sympathetic action; 4, the circulation.

Powers opposite to those we have enumerated



tend to diminish excitability. Some are negative, such as repose, loss of blood, &c.; others are positive, and, like moderate cold, diminish excitability in a direct manner. The excitability of our solids is in direct ratio with three conditions, viz., the quantity of blood they receive, the quantity of nervous influence allotted to them, and the predominance of their functional action. Several curious facts are connected with the history of excitability; thus, it would seem that only a certain and limited amount is contained in our system, and when it is called into one particular part, it is at the same time proportionately withdrawn from the others. Again, when excitation is produced in any one region of the body, it may, according to individuals, either increase or diminish the previously existing excitement of another organ; this clinical fact has often been noticed, and accounts for the differences of the results which follow, in various cases of acute pulmonary disease, revulsive treatment. A third important remark, which arises from the study of irritability, is the following:—if an endeavour be made to lower the excitement of any part, that endeavour may likewise be felt by the remainder of the system; thus, baths not only diminish over-excitement of the skin, but often of the internal viscera.

We now come to the study of the morbid increase of irritability, viz., *irritation*.

**IRRITATION.**—We have already enumerated the agents by which it is produced; let us at once proceed to study its local and general effects. The former may be referred to four heads:—1, disturbances of circulation; 2, of secretion; 3, of nutrition; and 4, of the innervation of the affected part: each of which may exist separately, or be combined with all or any of the others.

1. The disturbances of the circulation of a part under the influence of local irritation may produce hyperemia; and its results, such as we have on a former occasion explained, or true inflammation, may terminate in hemorrhage.

2. We stated that the secretions of the irritated part were modified; and here the transition from the physiological to the pathological state becomes obvious; we often, in health, see excitement cause increased secretion—saliva flows into the mouth, bile into the duodenum, under the influence of healthy excitement: we may notice the hypersecretion of gastric mucus, when a foreign body, not possessed of nutritious properties, is introduced into the stomach; and of gastric juice on the introduction of nutritious matter. Phenomena of the same order are observed in disease: a particle of sand on the conjunctiva causes tears to flow, pyrethra calls saliva to the mouth, and purgative substances produce a discharge of intestinal mucus. Here we observe the same fact reproduced under various forms; but this is not all: without the interference of any foreign body, spontaneous ophthalmia, or stomatitis, causes tears and salivation, inflammation of the duodenum, a flow of bile. The reverse may also occur—i. e., irritation of a surface may occasion a diminution of the secretions of vicinuous glands; stomatitis often at first produces dryness of mouth and duodenitis icterus. It is not necessary that a communication should exist between the irritated surface and the secreting organs: a mustard poultice on the leg of a debilitated subject will readily be productive of cedema; and in the same class of persons, particularly in children, leeches have sometimes the same effect; we know erysipelas occasionally causes the parts it invades to assume an cedematous appearance—a fact which we must not forget in the diagnosis of simple from phlegmonous erysipelas. In all these cases increased secretion has been preceded by evident congestion; but in others the increased secretion is positively the first observable symptom: perspiration, mucus, bile, saliva, serous fluids—all may be secreted in morbidly increased quantities without any apparent congestion; these instances are infinitely less common than the former, but still they exist, and must be noticed. All these varieties of fluxes are called active, and may, therefore, as we have said, result from congestion *in loco dolenti*, or in a neighbouring part, or without the previous existence of any recognisable congestion. The increased secretion may outlive the

hyperemia from which it has proceeded—an occurrence peculiarly remarkable in mucous membranes. We sometimes see the flux retaining the characters of the original congestion; and, on the contrary, we often find that the stimulation gradually disappears, leaving in the secreting organs the habit of separating from the blood a larger quantity of elements; thus, as the increased secretion becomes of longer duration, its nature is modified; and a passive condition is established; and that flux, which at first would have yielded to only antiphlogistic measures, now imperiously demands the local application of substances of a more or less stimulant nature.

3. The nutrition of any irritated part may be also modified by the presence of irritation, hence various alterations of texture and the possible development of accidental productions. There can be no doubt but that the prolonged excitability of any part may occasion all accidental products—rapid alterations of nutrition may arise from over-excitement. The softening which we so frequently observe after inflammation is a striking illustration of the assertion. From chronic disease the alterations of nutrition are even more common than in acute maladies; the disturbances of nutrition may show themselves in the irritated part or in the vicinuous structures. The latter case is not uncommon—e. g., hypertrophy of the muscular portions of the heart, in consequence of prolonged stimulation of its lining membrane; the same thing may be noticed in all organs in which a muscular coat exists, lined by a mucous membrane, such as the stomach, bladder, and colon. The various accidental products often recognise as a producing cause a state of congestion of the part they occupy; cancer thus sometimes follows inflammation of the breast, and bronchitis frequently precedes tubercles. It may even be laid down as a general principle that the stimulation of any part may cause alterations of nutrition of various kinds, and especially all sorts of accidental products; but irritation precedes, necessarily, none: it may be their accidental cause—the first agency by which the nutritive movement has been modified; but individual predisposition to cancer, tubercle, &c., is the indispensable element, without which stimulation ever so great is incapable of producing them. Predisposition, or diathesis, and accidental irritation, are, therefore, the two causes to which their development must be referred; hence a double practical indication where the formation of a morbid product is apprehended—tubercle for instance—1, improvement of the patient's constitution; and 2, the avoidance of all causes of stimulation.

4. In some cases the stimulation of innervation follows or accompanies other disorders, but it may happen that innervation may be alone disturbed; nervous irritation is therefore clinically separable from all other forms of irritation. Many neuroses are clearly attributable to undue excitement of the nervous system. Two circumstances facilitate the development of nervous irritation: the first is the natural predominance of the nervous system; the second is the accidental over-excitement of that system, resulting from passions, emotions, intellectual preoccupations, &c.

In many cases the facility with which undue excitement of the nervous system is produced, is in direct proportion with the weakness of the constitution. This debility may be the accidental result of extreme muscular fatigue, of abundant hemorrhage, of excessive venereal indulgence, or of prolonged disease and tedious convalescence. In all these instances, a predominance of the nervous system is established, and that condition which has been aptly termed "the neurosthenic state." This nervous irritation shows itself—1, by local symptoms; 2, by the establishment of the neurosthenic state—a division which leads us by a natural transition to inquire into the general accidents resulting from irritation.

Local irritation betrays itself in the whole system by a universal increase of excitability, or by an apparent decrease of this property, and an oppression of the vital powers. This decrease may be real, and absolute debility be the result of irritation—a distinction which is practically of the greatest importance. Irrita-

tations of one part may also occasion over-excitement of another part, in consequence of what is called the "law of sympathy." Many phenomena of health are sympathetic; the expression when applied to health is not correct, because no suffering is present; we prefer the term of synergy, proposed by Barthez, reserving the word sympathy to the phenomena of disease.

In sympathy, it is in particular, excitability which is brought into play; thus disturbances of sensibility are frequently observed, e. g., headache in gastric suffering. The intellectual powers may suffer in the same manner; in acute diseases nothing is more frequent than delirium. Some organs exercise in this respect a remarkable influence on the production of mental aberrations—the stomach for instance; it is not correct to say, however, that hypochondriasis is always the result of gastric disease, but in most cases it is perfectly true. It is a singular characteristic of chronic affections of the stomach and liver to throw the mind into a state of despondency, sometimes leading the patient to self-destruction; whereas the severest diseases of the lungs are equally remarkable, by the sanguine hopes the sufferers continue to entertain up to their last hour.

The uterus is an organ which exercises a notable influence on the intellect. In many women, at the approach of menstruation, changes of temper and a singularity of tastes and ideas are observed. Puerperal mania, after parturition, is also a sympathetic suffering. Spasms, and convulsions in children, are disturbances of motility which sympathy often produces.

The nutritive functions are likewise frequently sympathetic of disease in one organ; during cerebral affections, during pregnancy, in acute or chronic metritis, in maladies of the kidneys, in colica nephritica, vomiting is of frequent occurrence.

In the respiratory organs sympathetic symptoms are observed: cough and dyspnoea, for instance. We recollect the case of a girl who was troubled with most distressing dyspnoea, which we could not account for by the examination of the thoracic organs; the cause was accidentally detected: it was the presence of tapeworm in the intestines; the tænia was expelled and the patient cured.

The circulation presents numerous and varied sympathetic phenomena. The two extremities of the circulatory apparatus are their seat. Thus we find syncope or palpitation consequent upon exaggeration or arrest of the motions of the heart. In the capillaries, congestion, hyperemia, or hemorrhage may appear sympathetically. The arteries and veins present no symptoms of the sort.

The organs of secretion are the seat of increased or suspended action from sympathy. This we notice in the salivary, urinary, or chylopoietic glands.

The phenomena caused by sympathy have doubtless been much exaggerated, and the gradual advance of medical science has much contributed to diminish their number. Some of the symptoms coincident with disease are referrible to its producing cause: e. g., the petechiæ, sudamina, &c., of typhoid fever are not by any means sympathetic of the intestinal alteration, but depend upon that cause which produced the malady. The same thing may be said of endocarditis or pericarditis in rheumatism, of intestinal ulceration in phthisis, of blindness in meningitis, none of which are sympathetic. In Bichat's "General Anatomy" we find that he attributes to sympathetic debility of the cellular tissue the cedema which occurs at the close of chronic disease; this explanation cannot, now-a-days, be accepted, and Bichat himself would not now propose it; the cedematous swelling of the limbs in chronic maladies must be referred to mechanical obstacles existing in the veins to the return of blood to the heart. The abscesses observed in the liver, after injuries of the head, were, not very long since, attributed to sympathy. The history of phlebitis and purulent metastasis has removed this error and pointed out the real cause. External strabismus is attended with dropping of the lid, dilatation of the pupil, and dimness of vision. The latter symptoms are not sympathetic; anatomy explains them by the anastomotic com-



munications of the said pair of nerves with the ophthalmic ganglion.

Sympathetic phenomena must be studied in their connection with the original suffering. They generally follow the latter, but may appear almost simultaneously, or even seem to precede the malady by which they are produced. Often the sympathetic symptom is more marked than the manifestations of the primary lesion, and conceal them by their intensity. In the adult, meningitis is almost constantly preceded by headache, and sympathetic vomiting appears only later; but in children, vomiting is often prior to any of the pathognomonic symptoms of the disease. The sympathetic phenomena may be continuous or periodical; they may be inferior, equal, or superior in intensity to the primary symptoms; and their cessation may be prior, simultaneous with, or subsequent to, those of the original malady, persisting after the disease which they at first coincided with has disappeared. Sympathetic sufferings cause at first only dynamic disturbance, and may at a later period be connected with organic disorder.

The number, nature, and seat of sympathies, vary with each individual: infancy is remarkable for the energy and number of its sympathetic symptoms; hence, in childhood, all irritations, even slight, may be productive of serious appearances, and local diseases more easily become generalized than at any other period of life. The brain is the most frequent seat of sympathies in childhood; few acute diseases of infancy are unaccompanied with convulsions or coma—a circumstance which accounts for the frequency of what is erroneously supposed to be cerebral inflammation. In the aged, we find but few sympathies; the same disease, therefore, at the two extremities of life, shows itself with widely different characters. In old age, it is more simple, more easily localized, more readily diagnosed: still an adynamic form sets in with facility, and may conceal the progress of local damage—a fact often noticed in the pneumonia of persons at an advanced age.

Sympathies are generally more numerous and more easy in the female than in the male sex. This depends upon the uterus on the one hand, and on the other upon the greater vivacity of impressions on the nervous system of women. The diseases of women are more complicated, less easily localized, and their diagnosis is more difficult, than the maladies of men.

Temperaments also cause great variety in the nature, seat, or energy of sympathy. Inflammatory fever frequently accompanies the maladies of persons of a sanguineous temperament; an easy predominance of nervous symptoms, greater susceptibility to pain, the ready production of delirium, are chiefly observed in nervous persons; in lymphatic patients the sympathies are very dull, and in the bilious constitution special sympathies are likewise observed.

Idiosyncrasy also causes sympathies to vary considerably; hence two diseases of the same seat, nature, and intensity, are never absolutely similar to each other, and hence may be inferred the impossibility of reading a disease in its various symptoms, by the inspection of the anatomical alterations observed on a dead subject.

D. MCCARTHY, D.M.P.

**CHOLERA.**—The cholera has reappeared, in all the Hedjas as far as Aden, with such intensity as to have destroyed more than fifteen thousand persons in a few days in the neighbourhood of Mecca. Latterly, the disease has lost some of its force, but it is extending towards the south. The alarm from this news was very great at Suez, and even at Cairo, but the rumours were strengthened by more positive news on the 15th. Djeda was spared up to the 15th of December. The Pacha has ordered a sanitary cordon to be established around Suez. Accounts received from Armenia announce that cholera has appeared among the Russian troops of the cordon established on the shores of the Caspian, and that it has commenced some ravages among them. From thence it has passed to the north-west of the same sea to Salgan and Lékéran, the inhabitants of which towns are chiefly

Tartars. Many Cossacks, guards of the Persian frontier, have succumbed to the pestilence. The same letter states that towards the end of August the disease reached Recht, a Persian town in the province of Guilan. All the west coast of the Caspian, from Bakou to Astracan, is in a far from satisfactory condition. Usually the cholera makes its approach in the form of diarrhoea and abdominal affections, and if debilitated persons are attacked, they recover with extreme difficulty. It still devastates Astarabad, Teteran, Recht, and Ispahan. Cases have occurred at Tiflis, and all the inhabitants who were able have left the town.

**MALIGNANT FEVER.**—The *Courrier de l'Alsace* gives the following alarming statement:—"The population of the village of Bolwiller is suffering from a horrible pest. A malignant fever carries death with it through this locality, which has hitherto been regarded as one of the most healthy in the country. Men are destroyed as in a climate attacked by the plague; the houses are filled with sick; misery, despair, and mourning, have taken possession of this commune, hitherto so joyful. There is scarcely a family in which death has not occurred. The fever appears to have arisen from the malaria from the pits at the sides of the railway, in which stagnant water has collected."—The *Journal de Penigord* announces the existence of a similar fever in the town of Nadaillac-le-Sec.—The *Phare des Pyrénées* mentions a severe form of fever as raging at Lectoure. The disease commences with violent pain in the head, accompanied by general debility. Soon after, the face is covered with a large crop of pustules, at first red, but becoming white. These pustules extend, forming a continuous ulcer, which discharges pus in great abundance. The disease is extremely contagious; the slightest touch suffices to communicate it.

Dr. Muynuk, of Gand, has recently used the narcissus pseudo-narcissus as a remedy for pertussis. He recites four cases. The flowers of the narcissus are given in powder, in doses of fifteen to thirty grains twice in the day. M. Dumont, of the same town, announces equally satisfactory results from the employ of the mistletoe (*viscum album*) in the same disease. According to M. Dumont, the effects of the mistletoe are so rapid that they may be usually observed within twenty-four hours. If, he adds, at the end of that time no good effect be observed, there is little hope of benefit from the remedy.

Dr. Berg, of Viborg, gives the history of a case of sciatica, in which he employed the bisulphuret of carbon with marked benefit. A peasant, aged forty-four, who had suffered from severe sciatica for five years, with commencing atrophy of the limb, loss of appetite and sleep, for which he had employed a host of remedies, had recourse to the use of bisulphuret of carbon, both internally and externally, after the method of Wntzer. He was cured in about fifteen days.

An analysis of lymph has been recently made by M. Geiger, of Stuttgart. The lymph was clear, transparent, and obtained from the foot of a diseased horse. It gave on analysis—

Water .....	983.7
Fibrine .....	0.4
Albumen .....	6.2
Extractive matters .....	2.7
Fixed salts .....	7.0
Fat and ammoniacal salts...	traces
	1000.0

This lymph differed from most albuminous fluids in the phenomena produced in it by heat. Instead of the ordinary coagulation of the albumen, it formed pellicles on the surface of the liquid similar to those on boiled milk, and in this respect resembled caseine rather than albumen.

**OBITUARY.**—M. Dutrochet, member of the Institute, the illustrious discoverer of the laws of endosmosis and exosmosis.—Baron Pasquier, Surgeon-in-Chief of the Hôpital des Invalides.

## PATHOLOGICAL SOCIETY.

Meeting of Jan. 9; R. ADAMS, Esq., Chairman.

Mr. Hamilton exhibited a preparation illustrative of the pathology of tumours in the abdomen. The subject of the disease, a female, aged fifty, was admitted into the Richmond Hospital. Three weeks before admission, and eight weeks before death, she stated that her health had been perfectly good, and that she was free from complaint of any kind at that time. She was seized with symptoms which she herself attributed to cold, namely, headache, shivering, and sickness of stomach, and then felt a painful swelling in the abdomen—a hard tumour the size of a closed fist.

On admission her appearance was that of a person for some time afflicted with chronic disease; she was thin, of a slightly sallow complexion, and expressed great anxiety about her disease. In the abdomen was found a flat tumour, the centre corresponding to the umbilicus, about five inches diameter, nodulated and very hard; it was so exquisitely sensitive on admission that a very accurate examination could not be made; but, after the excessive tenderness had been removed by leeches and a blister, the tumour was found to lie deeply imbedded and fixed, and its boundaries could be traced on the left side, but not on the right, where an obscure diffused swelling extended into the right iliac fossa, in the course of the ascending colon, and was thought to be unconnected with the real tumour, but probably caused by fæces in the intestine, which turned out to be the fact. The tumour was, as before observed, nodulated, and its superficies equal in bulk to two fists. When the patient moved about, the tumour only moved very partially with her; it was moved forward with a strong pulsation resembling that of an aneurism; but there was no lateral distention; no regular bruit heard; only a slight *bruit de soufflet* was audible upon strong pressure with the stethoscope. She felt a dragging, darting pain, which continued with little intermission till her death.

Any treatment adopted seemed perfectly useless. The skin became of the deepest jaundiced hue, but the stools were dark-coloured, though nothing like melæna was present. Obstinate bilious vomiting then ensued, which was scarcely relieved by any of the usual remedies. The pain in the tumour increased, and after delirium, with blindness, for some hours previous to death, she gradually sunk. During the patient's lifetime, Mr. Hamilton said, no decided opinion was formed respecting the nature of this tumour. From its proximity to the surface, he thought it probable, at first, that it was a malignant growth from the omentum; upon finding it press so deeply into the abdomen, however, and that motion or position did not affect it, he gave up that idea. He then thought it possible it might be a mesenteric tumour. Some gentlemen who saw the case were of opinion, that from its high position it might be malignant disease of the liver. In this opinion Mr. Hamilton did not concur; he still, however, remained undecided as to its real nature.

Examination exhibited a curious and very rare form of disease, chiefly of the duodenum, at its upper portion, commencing immediately beyond the pyloric orifice of the stomach. It consisted of a large homogeneous cancerous mass, engaging the whole structures of the bowel; and just where the duodenum terminates in the jejunum, a second growth of a similar character was beginning to form, the coats of the intestine being considerably thickened and of a pale yellow colour; another large oval patch existed in the colon, the diseased portions of the bowels being evidently affected by what is called lardaceous cancer.

It was now seen, Mr. Hamilton observed, that the jaundice arose from obstruction of the ductus communis choledochus; the duct was not blocked up, but its tube was compressed by the pressure of the diseased mass. The gall-bladder was enormously distended with dark bile, and some effort had been made by nature for the relief of this obstruction by an adhesion, which was observed to have commenced between the gall-bladder and ascending colon, and opposite to this point of adhesion a small ulcer existed in the mucous membrane of the



gall-bladder. The liver was very dark-coloured, owing, probably, to the presence of an unusual quantity of dark bile. The pancreas was harder than natural, but very little altered as to size; but its right extremity or head was lost in the malignant mass in the duodenum.

Dr. Hutton exhibited a morbid specimen taken from a child, aged four years, who had died from the effects of an extensive scald. She was admitted into the Richmond Hospital on the 25th of November last, with the skin of the face, neck, chest, and arms, extensively blistered from a scald which occurred two days previously. On admission the child was shivering, with cold surfaces, quick feeble pulse, and a degree of stupor. External warmth being applied, and diffusible stimulants administered, some reaction took place.

Nov. 27. The bowels were confined. A dose of castor oil produced discharge, at first of a green colour, afterwards of the colour and consistence of tar. She now seemed to improve; a considerable part of the scald became covered with new cuticle, but in some places the skin was ulcerated, and the ulcers did not indicate a healthy action. There was occasional diarrhoea, which was easily controlled.

On the 6th of December, thirteen days after the occurrence of the accident, the child began to vomit everything she took, and she passed blood by stool; this discharge continued from time to time throughout the ensuing day, and on the next, Dec. 8, she died.

*Post-mortem.*—In making the examination, particular attention was directed to the stomach and duodenum, the latter being frequently found by Mr. Curling, of London, to be the seat of ulceration in fatal cases of burn and scald. Four or five ulcers were found in the upper portion of the duodenum, and at the part corresponding to the head of the pancreas, one of the ulcers—a slight one—was seated at the point of entrance of the ductus communis choledochus. The mucous membrane around the ulcers was of a polished red colour. The remainder of the duodenum was free from any morbid appearance, as was also the rest of the intestinal canal. At the lesser curvature of the stomach, near the œsophageal opening, there was a very large ulcer, similar in character to those of the duodenum, viz., having deep rounded edges and a flat surface. The stomach, near its lesser curvature, was adherent to the diaphragm.

Dr. Hutton looked carefully for the source of the hemorrhage that occurred in this case, but was unable to find any trace of ruptured vessels. Neither the stomach nor intestines contained any blood, and, though the ulcer of the stomach lay close to the coronary artery, there was no appearance of its having opened into it. These cases, Dr. Hutton observed, usually proved fatal in one or other of two ways, viz., discharge of blood from ulcerated vessels, or from perforation of the intestine—peritonitis.

## REVIEWS.

*A Treatise on the Inhalation of the Vapour of Ether for the Prevention of Pain in Surgical Operations; containing a Numerous Collection of Cases in which it has been applied.* By JAMES ROBINSON, Surgeon-dentist to the Metropolitan Hospital. London: Webster and Co., 1847. Pp. 91.

The great scientific wonder of the day is the alleviation of the suffering accompanying the most excruciating operations. The agent of destruction and infliction of pain afforded by the discovery of Schönbein is followed in quick succession by another agent for its removal. The inhalation of ether has been successful in mitigating or preventing painful sensations, and operations have certainly become more frequent, and have been submitted to with greater readiness, since the introduction of these inhalations. A large number of facts have accumulated within the few weeks which have elapsed since the discovery was made known in England; almost the whole of which are embodied in the clever work before us. The

author was, as we have already stated in the pages of the *Medical Times*, the first to employ this agent in England, and he made use of it within a few hours after the news arrived from America. He was present at a large number of the metropolitan operations, and his administration of the vapour was usually attended with complete success. He is, therefore, in a position to lay before the medical world the effects of the inspiration of ether. The first portion of the pamphlet is occupied with his own observations; both as regards the most effectual mode of administration, the forms of apparatus and the indications which points out that the full effect is induced. We need hardly say that they are valuable.

These observations are followed by a large collection of cases in which the etherealisation has been employed; collected from all available sources. Hence this little work will be valuable to all operating surgeons and physiologists, who will find, compressed into a small bulk, all our present knowledge on the subject. Our limits prevent us from going into further details or making extracts from the work. We shall merely mention, in conclusion, that Mr. Robinson attaches great importance to the purity of the ether. He gives the following directions:—"Having procured the strongest and purest rectified sulphuric ether, wash it well with water to get rid of any acid that may remain, and which would cause considerable irritation, producing coughing, &c., during the inhalation. The ether is then to be decanted from the water, and dried with chloride of calcium, to free it from any water that might otherwise remain from the washing. Since adopting this process I have found the effects of the vapour more consistent in its effects, producing little irritation, seldom sufficient to cause coughing, which may generally be altogether prevented by allowing the patient to take six or seven inspirations of atmospheric air in conjunction with the ethereal vapour at the commencement of the inhalation."

## TO CORRESPONDENTS.

THE MEDICAL TIMES is the only Medical Journal published at its own Office, and which is free from the control of all Booksellers and Publishers. Gentlemen may procure it by an order on any Newsmen or Bookseller, or it will be sent direct from the Office of the Medical Times to Annual Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town, One Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d. No number of the Medical Times can be forwarded, except to gentlemen paying in advance.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

We beg to direct our readers' attention to the magnificent work on *Physics*, which is announced in our advertising pages as to be commenced in the next number of the *Pharmaceutical Times*. It will be illustrated by 585 beautiful engravings, and continued weekly without interruption to its conclusion, which will be reached in about 35 numbers. The annual joint subscription to the two journals (*The Medical Times* and the *Pharmaceutical Times*), is two pounds.

Mr. Robinson wishes us to mention that he has not the slightest interest in the sale of the apparatus for the inhalation of ether, as constructed by himself, having given the invention to the public, which any one can now manufacture.

A Correspondent, who addresses us on the best form of ether-inhalers, will find some remarks on the subject in our next number. Mr. Fergusson's remarkable operation of removing the scapula and collar-bone was performed with the aid of Mr. Startin's inhaler.

A Sufferer for many Years.—Various forms of

trusses are recommended to suit various forms of disease. Coles' trusses are among those of which we entertain a favourable opinion. Our correspondent, however, if he have means, will do well to consult a respectable medical gentleman. If he has not, the Truss-Infirmity is open to him.

F. K. H., who sends us some information, should have forwarded his name in confidence. We have ascertained that the facts are true that have been mentioned to us, and therefore would be obliged if our correspondent would confidentially communicate with our solicitor, Mr. Cattlin, of Ely-place, Holborn.

P.—Any member of the College can give an admission to the Hunterian Museum.

A General Practitioner's protest against Mr. Paget's appointment is written in a spirit of personal hostility to that gentleman, and, therefore, is inadmissible. There is no real objection to that gentleman but the grand one—his non-surgical attainments.

The verses of Milo, though clever, are unsuited to our columns; our readers will see why, from the following couplet:—

"There's one you know that tit for tat,  
Your back can lay the lash on."

Medicus adds further grounds to the warning some have addressed us about a Mr. Dewhurst. Our correspondent, however, though doing through us a duty to the profession, would involve us in the penalties of a libel, were we to carry out his good intentions.

A pressure of matter has delayed to our next number the insertion of several interesting reports.

The Epigram on the libel case is even too severe for us.

A Constant Reader, Bath.—From the state of the law on such points, we had to pay our own expenses in reference to the criminal information.

The communication of Filius Æsculapii shall receive the very early insertion its importance demands.

A Constant Reader's protest against the indiscriminate sale of poisons is unfortunately too well-founded. It is a subject we shall again revert to.

M. D., Edin.—The report of the Hope Insurance action will be found in a past number of the Medical Times.

We have received communications from Mr. T. H. Barker, Mr. Burman, Dr. Clay, Mr. Saunders, Mr. Alsop, Mr. Southee, Mr. A. Smee, F.R.S., Dr. Willshire, Mr. Startin, Chirurgus, Mr. Kay, Dr. Stevenson Bushnan, Dr. Hilbers, Dr. Brookes, Mr. Wilderspin, and Mr. Markwick.

Sir Benjamin Brodie's surgical lecture in our next; to which we are also obliged to postpone the conclusion of Mr. Braid's interesting paper.

Lethæic Apparatus.—Mr. Dorr writes to us that it is possible to strangle instead of letheonising, and advises operators to be careful that all the air-passages of the apparatus used be of large diameter, sufficient to allow of perfectly free and easy respiration through the apparatus. He regards the compressing the nostrils of a patient, by means of a spring or other instrument, as dangerous and improper. Mr. Dorr has also assured us that he is not unwilling to renounce his patent, on any proper acknowledgment being made to him by the public.

A Correspondent writes:—"The 'Coroner' states that the 'Medical Witnesses Act' does not require the coroner to call in and examine the medical attendant of the person on whom an inquest is being held, as laid down in the late judgment against him in the Court of Queen's Bench: it only states that it shall be lawful for him to do so. If, therefore, this is the lawful course of proceeding, does it not necessarily follow, that the opposite course must be unlawful, and is not Mr. Wakley, in fact, arguing his own condemnation?" Our correspondent thinks, however, that "some excuse should be made for that person, as his judgment must at present be in abeyance under a natural amount of excited feelings." The statute is not permissive only, but mandatory. It is a statute regulating the attendance of medical witnesses. What it describes as lawful is the only thing that may be done. Medical men must not forego this



privilege, and, therefore, should be prepared to try it again, if necessary.

Mr. C.—We should recommend either Robinson's Startin's, or Hooper's apparatus. The remarks appended to the letter relative to an enemy to the Medical Times are just: he will have his downfall in good time, and exemplify all our correspondent has said. We shall eventually triumph.

P. Q. R.—An apprenticeship is no more required by the Army Medical Board than by the College of Surgeons; but the candidate must prove that he has been engaged five years in the study of his profession. We cannot give a decided answer to the second question on the spur of the moment. The latest age is twenty-six.

A. B. H.—The usual dose of liquor arsenicalis is six, eight, to ten drops, three times a day, taken after meals. If our correspondent is not a professional man, we should advise him not to use so potent a remedy, without the advice of his medical attendant.

Mr. Consett's and a Subscriber's hints will be taken into consideration. We regret that the former should have been inconvenienced in the manner of which he complains.

Mr. Morris will have seen that his paper was inserted last week. Press of matter compelled us unwillingly to defer the insertion of his interesting communication.

Communications have been received from V., Dr. Smith, and Mr. Dorr.

## THE MEDICAL TIMES.

SATURDAY, FEBRUARY 20, 1847.

### THE JUDGMENT.

"The attack on the Coroner, being circulated in such a journal as the 'MEDICAL TIMES,' naturally produced a strong sensation and general excitement."—UNANIMOUS JUDGMENT OF THE QUEEN'S BENCH, DELIVERED BY LORD DENMAN.

"I CANNOT DISGUISE from the Court that the continued exercise of Mr. Wakley's functions as Coroner depends on the granting of this rule."—SPEECH OF THE ATTORNEY-GENERAL FOR THE CORONER OF WEST MIDDLESEX.

THERE are some people who can never be without a merit. There is a chemistry in them that extracts it out of anything. Thus a West Middlesex coroner, at public meetings, will find a natural claim to distinction in his condemnation by the Court of Queen's Bench! Their decision against him becomes quite a godsend to his political repute. In sooth, it helps him to keep it of a piece. Verily, the impersonation of *injured innocence* becomes him! 'Tis so much like him—and then is so easy! You have only to think all the Judges of the Queen's Bench deliberately "ignorant" and "unjust," and forthwith the coroner becomes quite the thing. Only believe the first court in the empire forsworn, and the coroner is a very ill-treated, decent, public sort of a person!

The poor discomfited functionary talks too—and is so reported—of trying the Hounslow inquest over again. Beaten by Denman, he will go, he says, with it before Pollock. He is as fond of that amiable and well-meaning Judge, apparently, as he is antipathetic to the Judges of the Queen's Bench. Sir F. Pollock was Wakley's counsel before mounting the bench. He was long his co-member of the House of Commons. He twice charged the jury as Judge when Wakley secured two verdicts against the *Medical Times*. Wakley, therefore, has the

indelicacy to express a peculiar confidence in him, and to talk of trying before him the Hounslow inquest. We trust his lordship is flattered by the ostentatious confidence. We wish it were shared by both parties. We wish that, while acknowledging his *intention* to be just, we could be partners in a higher compliment to his *practice* than this—that, however grave our doubts of his skill as an *advocate*, they have been wholly removed since his promotion as *judge*.

Now, what is our answer to the indecorous threat that we shall have to defend anew our opinion on the Hounslow inquest before the Judge of our opponent's choice—Sir Frederick Pollock? This. We are ready for the inquiry. We may have our opinions on the propriety of the court chosen, or of the mode of procedure threatened—but no doubt of the final result. We invite—we challenge—we dare the investigation. There is not a word we have said of the inquest which we will not justify.

Bad as we early thought its management, we now deliberately record our judgment that it was even worse—ay, much worse—than we were accustomed to consider it. We are every hour acquiring proof that there were in its iniquities more of design and less of blunder.

We must be pardoned a few brief notices of an inquest which a whole court—the most august court of justice in the realm—is vituperated at public meetings for condemning:—

The Coroner swears:—

From a remark made by the said H. G. Day, before he was sworn to give evidence, he, the deponent, was induced to ask the said H. G. Day whether he had examined the muscles of the back, and the spine, &c., when the said H. G. Day stated that he had not done so, considering it unnecessary.—(Vide affidavit.)

The Coroner swears (Nov. 9, 1846):—

Until these gentlemen (Warren, Hall, Day, Reid, Wilson) were so examined on the said 27th of July, he, this deponent, was not aware, and did not know, what were the opinions of the said several surgeons, or any of them, as to the cause of death of the said Frederick John White. (Affidavit.)

Mr. Day swears:—

That it was upon a direct interrogation from the said T. Wakley on the 20th of July, that he, this deponent, informed the said coroner that he had not examined the spine of the body; and this deponent further says he did not, as in the affidavit of the said T. Wakley is alleged, say to the said coroner that he had not examined the muscles of the back of the said F. T. White.—(Vide affidavit.)

The Coroner says in his summing up to the jury (Aug. 3, 1846):—

When I received information from Mr. Trimmer, I sent the constable to Dr. Warren and to others connected with the barracks. Dr. Warren said that White had died from natural diseases springing from natural causes, and having nothing to do with the flogging.

(Sworn Report of a Shorthand Writer—filed.) Again:—

Upon your first view of the body, you were informed that an examination had already taken place, which was performed by two of the staff-surgeons acting in conjunction with Dr. Warren, that a report by them had been made to the Director-General

of Medical Hospitals, and so far there had been such an investigation that a distinct conclusion had been arrived at as to the cause of death. \* \* \* The two staff-surgeons having made their examination and reported their opinions that the death resulted from natural causes, &c. (Ibid.)

Sergeant Potter swears:—

That this deponent replied (on July 20) by stating that the opinion expressed by the said J. L. Warren, J. Hall, and F. Reid, after holding such *post-mortem* examination as aforesaid, and in which each of them (the said, &c.) fully concurred, was, that the death of the said F. J. White was occasioned by inflammation of the heart and lungs.

Some indiscreet upholders of this inquest say that the medical witnesses were only treated as they deserved. Now, how was that?

1. Dr. Hall and Dr. Warren, who had seen White before death, were, in direct violation of the statute, prevented from giving their testimony, and this on the ground (avowed in the subsequent summing up) that they were not to be credited.

2. The statute was again violated by the premature and informal nomination of Mr. Day.

3. Though Dr. Reid, Dr. Warren, and Dr. Hall, were very generally charged (and through the coroner's own suspicions, expressed on the first day of the inquest) with making away with the "skin" of White's back for the worst of purposes, they were not allowed to give evidence and clear their repute, or even to enter the court, till the third adjournment of the inquest, being the third week of its duration.

4. Though Mr. Day was unanimously chosen by the jury, and though they had expressed the utmost confidence in his ability and integrity his evidence was illegally demurred to, and postponed.

We pass by the illegal appointment of "the private associate," Mr. Wilson, and the illegal exclusion of the army medical officers from the third extraordinary *post-mortem* examination, and come to the treatment of the medical witnesses when under examination.

5. What says Dr. Hall?

"The coroner has throughout endeavoured to throw discredit on the medical men connected with the army. \* \* \* Mr. Wakley interrupted the reading of the paper" (medical observations and testimony intended for the jury) "by other matters, as I expected."—Vide *Medical Times*, Aug. 15.

What swear Drs. Warren and Reid?

That "the charge of 'bullying medical witnesses' is true as regards Dr. Hall, Dr. Reid, and Dr. Warren."

What swears Mr. Day?

That "Drs. Hall, Warren, and Reid were not treated with that courtesy and impartiality due to medical witnesses in a court of justice";



and that their exclusion from the inquest-room and the *post-mortem* examination was "inexpedient, and calculated to prevent the said coroner and jury from obtaining full and satisfactory evidence touching the cause of death."

6. Mr. Day's evidence reveals another extraordinary fact. Though Mr. Day joined in the second *post-mortem* examination of Wilson, the coroner asked him not a single question on its results. When he had received the facts of the former examination, he dismissed Mr. Day, in order that Mr. Wilson should be the sole authority in the second. *If Colonel Whyte and Dr. Warren had not insisted on having Mr. Day called up a second time and examined, we should have been indebted solely to Mr. Wilson for the phenomena of the "autopsy of discovery."*

7. To make up for any discourtesy to Mr. Day and the other medical gentlemen, we had certainly an excess of kindness to Mr. Wilson. We give the exordium of this gentleman's evidence from the sworn report.

"Coroner: What are you, Mr. Wilson?"

"Wilson: I am a Fellow of the College of Surgeons, Consulting Surgeon to the St. Pancras Infirmary, and Lecturer on Anatomy and Physiology to the Middlesex School.

"Coroner: Where do you live?"

"Wilson: At 55, Charlotte-street, Fitzroy-square, St. Pancras, London.

"Coroner: You have written some books on the skin, I believe?"

"Wilson: Yes, I have.

"Coroner: What are their titles?"

"Wilson: REALLY I ALMOST FORGET, BUT I AM HAPPY TO SAY THEY ARE OUT OF PRINT."

The coroner now, of course, kindly informs the modest, simpering author of the name of his books. Could there be anything more *piquant* since the celebrated forgetfulness of Lord Dudley and Ward, who, making a call with a friend, and being asked to leave his name, had to appeal to his companion's aid before he could give the requisite information. "Ah—exactly. H—what is my name?" Mr. Wilson, in a spirit akin, can tell the world the names of his literary offspring—his two books—*if* first helped by the coroner of West Middlesex!

But the coroner's wish to play the part of advertising-van to his quondam servant, to make the inquest serve his friend, did not stay here. In summing up to the jury he placed him at the head of the medical profession, and located him an Aristides in the body of moralists.

"I did not hesitate, on looking for the MOST COMPETENT person, to fix on Mr. Wilson. It is *right* I should say that Mr. Wilson is a gentleman of distinguished acquirements in his profession, a first-rate anatomist, and a gentleman with a *high character for unimpeachable veracity*!"

Imagine a judge giving a good character—and in this way—of his friend to the jury! We can hardly realize the extraordinary procedure. What a fortune would be Wakley's acquaintanceship to Professor Holloway or Morison!

There is one fact elicited from the affidavits that deserves a notice we have not hitherto been able to give it. The coroner swears that he has not given Mr. Wilson so many as twenty-five *post-mortem* examinations. Mr. Wilson,

more cautious, swears that he has not had *above* twenty-five. The coroner is not civil enough to say how many *post-mortem* examinations he has altogether given—though he informs us how much his seven or eight years' coronership has yielded in the way of fees for all kinds of medical evidence. He has paid £1,400 for medical testimony. Say—£200 per annum. Of the £200 per annum, possibly twenty pounds were given for *post-mortem* examinations, which thus yield a ratio of about ten per cent. in the inquests—in other words, it is anything but clear that Mr. Wilson, *for two years and a half*, did not get *every post-mortem* examination! In any case, it will depend on the ratio of *post-mortem* examinations to inquests, and to the length of time over which Mr. Wilson enjoyed the patronage, how far he monopolized the *post-mortem* examinations of West Middlesex! The only circumstance needed to give a "finishing touch" to this scene in the coronatorial drama is the fact that all, or nearly all, these *post-mortem* examinations must have been in direct contravention of both law and equity. The statute is clear that the *post-mortem* examination belongs to the medical gentleman attending the deceased before death, unless, after hearing that witness, the jury require in writing another professional authority! Lord Denman's judgment, however, secures us a change. Henceforth the fees and the reputation brought by these autopsies will not—cannot—be distributed among a few Erasmus Wilsons. The Court of Queen's Bench has decreed that they are not—and may not be—the private patronage of any coroners. They belong to the profession!

Let us, in conclusion, offer our congratulations on an event which for ever vindicates, no less for the public than the profession, laws outraged through long years with impunity; which restores to their position in society a body of meritorious men—veterans who had served their country with an unsullied and prized reputation for periods of more than thirty years; and which finally throws back the tide of public obloquy and disgrace on the head of that very party who, in the reckless but vain effort to overwhelm whatever stood in his way, violated the statutes of the realm, perilled the efficiency of the right arm of the State, spurned the courtesy—nay, the humanity—due to men, to officers, and to professional brethren, and trampled under foot the plainest principles of that justice which it was his first duty, upon oath, rightly to administer.

#### THE ROYAL SOCIETY.

(From a Correspondent.)

THAT we live in a world of change, is an old and a true adage. It is an inevitable result of the constitution, both mental and bodily, of man. Change, implying alteration of state or condition, may be for the better or the worse; as often, perhaps, for the one as for the other. Change is not confined to the bodily or mental condition of each individual: it equally pervades communities, whether nations, towns, or societies. These general observations bring us to

the subject-matter of this article—the contemplated alterations in the constitution and mode of election of members of the Royal Society. Rumours reached us, some months since, that the Council of this Society was about to introduce an example, unknown in the annals of societies, of what we cannot but term exclusiveness.

It appears that the council have (*proh pudor*) at length discovered that the society contains among its members some (many?) of whom the council cannot but feel ashamed!—that the society has in pure benevolence admitted men of *very* slender acquirements among its members, whose names sadly disagree with the high scientific character of the Royal Society. This is certainly and justly a source of provocation to the council from which it cannot be extricated until the present generation shall have passed away.

It is a well known and acknowledged fact, that the members of the aristocracy, or even of the gentry, of England, have been and are now admitted into the list of members without the semblance of a *black ball*. It is an equally established fact that in exact proportion as a man is *less* known in the scientific world, in that same proportion is he *more* easily pitchforked into the Royal Society. This is a lamentable state of things. That an avowedly scientific society of the highest pretensions—claiming for itself the supremacy of all other scientific societies in the British realm, should set so unworthy an example to its inferiors—should so invert the proper order of things—cannot but excite the astonishment and wonder of persons uninitiated in the mysteries of a coterie.

Perhaps the most extraordinary circumstance in the whole affair is, the extreme difficulty which meets the man rejoicing in the title of physician or surgeon at the very threshold of the society. We can positively state, without the remotest fear of contradiction, that such a man runs the greatest hazard of rejection. We may be asked, how can this be, when we find that a very large number of the fellows are members of the medical profession? Surely the members of a liberal profession, such as that of medicine, *cannot* place themselves in opposition to one of their own brethren, unless with sufficient reason. They will not black-ball one of their own body, unless some disgrace attach to his name or scientific acquirements! No such thing. Members of our profession are not rejected because unworthy of the honour, but because it is feared that the conferring of this honour will interfere with the interests of the existing fellows. Thus the Royal Society is lessened in repute: first, by the admission of unworthy and unfit persons as fellows; and secondly, by the rejection of those who are worthy, but who would obstruct or injure the interests of a certain section of the society! As a proof of the second of these propositions we will quote an example.

A celebrated English anatomist, who has published one of the finest works on his own particular science, and of untarnished reputation, applied in the usual manner for admission as a fellow of the Royal Society. Will it be believed that the medical fellows of the



society congregated on the evening of the election for the express purpose of excluding him, and the fatal proportion of black balls was found in the balloting-box? He was rejected. Knowing that gross injustice had been perpetrated, he again applied for admission; but, on this occasion, he took care that a sufficient number of his friends were present to ensure his election. Another and very similar instance could be stated, were it worth our while to waste time and ink on such a subject.

Having thus exposed the disgraceful circumstances which rendered some alterations in the mode of admission of fellows necessary, we shall pass in review the plan proposed by the council. Our readers will rationally expect the first act of the council, after having fully matured their project, would have been to call a general meeting of the fellows, and subject the proposed scheme for full and deliberate discussion. In such elevated regions this is not the practice. The council bears a striking resemblance to the celebrated Council of Ten, which exerted so arbitrary an influence over the affairs of Venice. That the council should bow itself before the inferior members would be a derogation of dignity which it could not and would not brook. It, therefore, issues its ukase, and the thing is done. Whether such a resolution will be acceptable to the whole body of fellows, is a question we are unable to answer. We are of opinion, however, that the act of the council is an illegal act, and that the fellows will not permit it to pass into a law.

The spirit of the present age is the very reverse of exclusion. Places which were in former days jealously guarded and concealed, are now thrown open to public gaze with the most entire freedom, and even the abode of royalty is not free from intrusion. Should the Royal Society place itself in the breach, and oppose itself to public opinion, is a matter of considerable doubt; and whether such a position will prove beneficial to the society is still more equivocal. The exclusive resolution of the council will undoubtedly place the society in an unenviable position. The council proposes that the number of fellows annually elected shall be limited to fifteen—the council alleges as its motive the admission of unworthy fellows—and the council very charitably takes all trouble out of the hands of the fellows, by selecting the envied fifteen for election. Any fellow, it would appear, may propose his friend for the honour; but the council will make the selection according to *its* appreciation of the relative worth of the candidates.

The fellows may, perchance, appreciate to its full extent the kindness of the council in saving them from a truly obnoxious task. But will they stand idly by and permit their long-cherished privileges to be filed from them in an indirect manner? Will they so fully trust in a coterie of antiquated men such as usually furnishes members to the council boards of societies—men opposed to all progress or improvement? The refusal of discussion, so much desired by many of the fellows, furnishes a proof that the council of the Royal Society is opposed to beneficial change.

What guarantee can be given to the fellows that the ultimate decision of the council will be in consonance with justice to the candidates? How frequently do we observe that men—each in private life scorning a dishonourable action—will, when associated in committees or councils, perform actions highly discreditable to the whole body! May not this occur in the council of the Royal Society? May not certain of its members have private friends of whose election they are desirous; and may not they influence their coadjutors? Undoubtedly this will be a frequent result of the present regulations.

If we could anticipate, from the previous conduct of the council, a pure selection, dependent on scientific acquirements, and not on personal interest or favour, we should be inclined to take a more favourable view of the project; but, under present circumstances, we can only look upon it as an unjustifiable infringement of the rights of the fellows, devised for the purpose of aggrandizing the council at the expense of the general body of the society.

### PAINLESS SURGICAL OPERATIONS.

#### NOTES FROM THE GENERAL HOSPITALS. FORT PITT, CHATHAM. (a.)

*Vapour of Ether. Brief Notice of some Surgical Operations performed under its Influence, at the General Military Hospital, Fort Pitt, Chatham.*

On Wednesday last the first trial at this station was made of the ether vapour, which was inhaled from a temporary apparatus made for the occasion. The first patient brought into the operating theatre was a soldier of the 56th Regiment, from whom a large molar tooth was extracted by Mr. Peck, dentist, of Chatham. The effect of the ether was very speedily and quietly manifested in him; and, on arousing in three or four minutes from his brief sleep, he would not believe that the tooth had been removed, until he became sensible of the vacant space.

The next patient was a private of the 37th Regiment, George Smith, 23 years of age, who had been for some months in hospital with scrofulous disease of the left foot and ankle. The vapour was less speedy in producing its full effects on this lad; but, after inhaling it for five minutes, the head fell, the eyes rolled upwards, and the lids closed. The leg was now quickly removed by the flap operation a little below the knee; the patient moaned once or twice, and, during the tying of the arteries, the limb was violently agitated by strong and involuntary spasms, which rendered this part of the operation somewhat tedious and difficult. He was made to inhale the ether at short intervals throughout, and on returning to consciousness, (which he did very speedily) he declared that he had "felt nothing except the sawing of the bone," which he described rather as a *sensation* than as a *pain*. On the dressing of this patient's stump about two hours after, he begged to be allowed the use of the inhaler again, and pulled at it with such vigour and avidity that he soon sank into a profound stupor, from which, however, he was aroused without difficulty, as soon as the dressing was completed, assuring us that had "felt little or no pain," even from the insertion of the sutures, and expressing himself greatly delighted that his sufferings had been so trivial from an operation which he had dreaded so much.

(a) Dr. Smith presents his compliments to the Editor of the *Medical Times*, and, if the enclosed paper be considered worthy of insertion, it is at his service.—Army Medical Department, Feb. 3.

The third patient placed on the table was a tall spare Irishman, private Edward Foley, 50th Regiment. This man was insensible in rather less than a minute from the commencement of the inhalation, and remained in a quiet sleep for about four minutes. In the interval the last phalanx of the great toe of the right foot was removed. On awaking, he was asked if he was ready to have the operation performed? He replied, "Oh, I'm very *wake*, but the toe is a great bother to me"; but directly after, lifting his leg high into the air, and gazing at the foot in astonishment, he shouted out, "Oh, by the Holy, but the toe is off"; whilst his face exhibited an expression of comical wonder and delight, that was most amusing to all present.

The two last operations were performed by Staff Surgeon Dartnell.

On another occasion, an intelligent young man, a corporal of the 94th Regiment, also a patient in the hospital, who had a tooth extracted while under the influence of the ethereal vapour, exhibited all the symptoms produced by the inhalation of the "laughing gas"; even while in the act of inhaling, he laughed and shouted into the tube. The moment the tooth was removed he jumped up in a most excited state, and danced about the room, saying "I'm in heaven, I'm in heaven—well, I never was in heaven before. Gentlemen, you musn't mind what I say, you see I'm in a sort of an ecstasy; but I knew all that was going on and felt you put the instrument on the tooth." "But did you feel pain?" "Pain, not the least in the world."

[To the Editor of the Medical Times.]

SIR,—I confess I feel somewhat relieved by the discovery of a substitute for mesmerism, in producing the comatose state, oftentimes so desirable to render the patient insensible to the acute suffering necessarily attendant on many severe surgical operations.

I first pointed out the great specific gravity of sulphuric ether vapour, proving by experiment that this vapour, at common temperature, may, like carbonic acid gas, be decanted or poured from one vessel to another; and that it would flow through a funnel or a stopcock, besides being pumped from a receiver, and thus transferred. I find also that the vapour floats on carbonic acid gas, and may be ignited while thus incumbent. No doubt, discrimination is necessary in the use of the vapour, which is, moreover, very susceptible of impregnation with extrinsic vapour and gases. Prior to being employed for the production of the vapour, to be inhaled, the liquid ether must be well washed with distilled water, obtained from a glass alembic.

The "rectified" ether may be introduced into the vessel from which it is to be inhaled by an orifice from without, and this liquid ether should occupy the lower part of the vessel, being separated from the superior part by a perforated septum, the inhaling tube being inserted from above. By agitating the vessel from time to time, the vapour will be constantly and continually developed, and occupy the vessel above. I find this agitation essential to its disengagement for the purposes of experiment.

I have, in these remarks, no other object than to indicate the circumstances under which the vapour of sulphuric ether may be most safely and simply inhaled for the purpose of inhalation.

I have the honour to be, Sir, your obedient servant,  
J. MURRAY, Ph. D.  
Portland-place, Hull, Jan. 21.

[To the Editor of the Medical Times.]

SIR,—I beg leave, with your permission, to submit to the profession generally a new mode of using the vapour of ether for lulling sensibility during surgical operations, and which will set the patent at rest, unless I myself adopt one, which I have no intention of doing at present.

The plan I offer is the injection of the vapour, by a very simple apparatus and long tube, *per ano*.

This will have many advantages over the respiratory plan, particularly in children and those patients who may have delicate or diseased lungs.



I need scarcely add that the well-known influence of narcotics, opium, tobacco, &c., when introduced *per ano*, is greater than when taken by the mouth or inhaled.

I shall not at present enter into particulars as to the instrument used, but let the inventive faculties of my brethren be set to work (and they appear to be very active just now) to determine what form of machine may be best suited for the purpose.

I am, Sir, your obedient servant,  
J. W. MOSES, M.D., M.R.C.S.  
St. Asaph, Feb. 15.

## MISCELLANEOUS CORRESPONDENCE.

[To the Editor of the Medical Times.]

SIR,—As we are now on the eve of another "Hunterian Oration," I trust that our medical brethren will not forget the compliment paid them on the last occasion; and that they will have more self-respect, and better understand their duty towards themselves and each other, than to compliment by their presence those who insult and wrong them, and who are the promoters of the evil schemes within that pesthouse of corruption—the College of Surgeons. Those who again pay the adulatory tribute to the corruptionists as a public body, by flattering them with their presence, are indeed "geese," and "geese" they must be designated.

The compliment conferred on those who thronged the benches of that place—which was the source of all our insults and wrongs which were then, and still are, overwhelming us—was courted and sought after by them, and was an apt one to an extreme degree.

For the sake of the honour and welfare of the profession, let none of us forget that we are members of an enlightened and what ought to be (but to our disgrace be it said that it is not) an independent body, and that those who support corruption by their complimentary presence on these public occasions (where many non-medical influentials are present) act in diametrical opposition to their own interest, and criminally injure that of their more independent professional brethren: for they become public countenancers of evil-doers, and so many practical props to the bad system: regulating the College—and for which, sooner or later, as the profession get to feel more painfully their degraded state, and better to discern their interests and rights—the "geese" will wofully repent.

Servile, indeed, must be the man who, upon due reflection, would sycophantically turn his adulatory face towards that place whence issue all our degradations, insults, and discouragements. Already, many independent and high-minded practitioners have declared their determination to forsake both Museum and College lectures, and to turn their backs altogether upon such an obnoxious and disgusting source of abuse.

Let the council in this manner be held up to society as what they really are—culprits; let the trustees, and Sir Robert Peel (the man of "expediency") amongst the rest, have it proved to them that the said council are thus really condemned, disowned, and forsaken by the profession; and then—and not till then—will a salutary expedient be had recourse to. The power is still in the hands of the profession, but they must work by practical means.

Those who make themselves absentees will, by their absenteeism, lose nothing, for the oration will be reported, if it is worth anything, in the columns of your excellent and triumphant journal. The surgical lectures, and those on human anatomy, have been hitherto an abominable farce, whilst only a contemptible fraction of the specimens have been brought into use to illustrate the few lectures delivered on comparative anatomy. Laboured disquisitions should be delivered daily, at stated hours, over sections of the museum, in the Museum: the collection is not made a millionth part the use of that it should be.

As an illustration of the mode in which the powers of the present charter were abused in the choice of fellows by the self-elect, the writer of this knows a gentleman whom a teacher took with him as a witness, when the latter made personal calls upon each one of the council, for the purpose of inquiring of them (as they specified in their manifestos their predilection for all the teachers in their selection of fellows) whether they knew the reason why they had made an exception of him, by excluding him from the fellowship? and whether they had anything to allege against him? Seventeen out of the twenty-one composing the council (all those who were then in London) declared that they knew not the reason, and that they had nothing to allege. Some, moreover, added that the selection of fellows was principally managed by a cabal of four or five, who always made it their business to meet for the purpose, and by their proceedings so disgusted some of the rest as to occasion them to stay away altogether from the meetings!!!

Sir, congratulating you on your late triumph in defence of some of our brethren who have been injured and insulted in the eye of the whole country, by an overbearing coroner—and hoping that the profession will not fail to render to you some public and unequivocal testimony of its approbation and gratitude for your fearless, upright, and independent conduct—and that you will long live to exercise your talent and ability in its cause,

I am, Sir, your obedient servant,  
MONITOR.  
Feb. 8, 1847.

\*. We are obliged by our worthy correspondent's congratulations—but on his suggestion about a public testimony to the usefulness of our humble labours we venture

to remark that we shall be more than content with our reward if each member of the profession, agreeing with our correspondent, will himself be an annual subscriber, and exert his personal influence to secure others among his friends.

## THE FINALE OF A COURT MEDICAL.

[To the Editor of the Medical Times.]

Dulwich, Feb. 15.

SIR,—In your journal of Jan. 30th you publish a note from Dr. Gregory, and an article on the "report," by Dr. Tyler Smith and myself, respecting the court medical, in the case of Dr. Gregory and Mr. Wigan, which appeared in the *Lancet* on the 23rd of January. You characterize the report as being "filled with hatred, malice, and all uncharitableness."

If you had given your readers an opportunity of judging for themselves, by printing the "report" in your columns, I am convinced that they would have arrived at a very different conclusion; and, if you will do so still, I shall willingly abide by their judgment; but if not, I beg to state, that it was drawn up with a most scrupulous regard to truth, and an anxious desire not to exaggerate any part of Dr. Gregory's wayward and extraordinary conduct throughout the whole affair.

But perhaps the best reply to your remarks is the following letter of apology, which Dr. Gregory addressed to me *after* the report was published. This was enclosed in another letter to me (which I do not think it necessary to publish at present), but which, with numerous other letters from Dr. Gregory, would fully bear out every word of the report.

I have only farther to add my hearty approval of the frank and manly, though late, apology of Dr. Gregory, which all must allow does him great credit.

I am, Sir, your obedient servant,  
GEO. WEBSTER, M.D.

[Copy of note from Dr. Gregory to Dr. G. Webster.]

"31, Weymouth-street, Jan. 30.

"My dear Mr. Webster,—I request that you will communicate to Mr. Wigan my regret that I did not send for him on the occasion of being called to his patient, on the 7th of September, 1846. I feel quite sure that he will himself acquit me of any design to injure his professional reputation.

"I hope that you and Dr. Tyler Smith will pardon me for having, in a moment of irritation, attempted to defend myself by the disparagement of your professional qualification.

"I regret very sincerely that my feelings throughout this affair should have been so excited as to lead me to do that which was hasty, and to say that which was intemperate. I trust that you and my professional brethren may find some partial excuse for these errors in an over-anxiety to uphold my professional honour, which appeared (perhaps unintentionally) to have been called in question.

"I am, dear Sir, yours very faithfully,  
"G. GREGORY."

[It is with much pain and more reluctance that we prolong the notice of a most unfortunate squabble, made only more disagreeable by the unwise efforts given for its arrangement. A sense of fair play to Dr. Webster, however, demands this brief further notice of a subject to which we shall not again revert.—ED.]

## SNUBBED AGAIN.

[To the Editor of the Medical Times.]

SIR,—The best thanks of the members of the College are due to your correspondents, "Vox Veritas" and "Echo Veritatis," for their very able and laudable efforts in defence of their rights and privileges, by endeavouring to inspire them not only with a sense of their present degraded position, but with vigour of purpose to thwart the vile machinations of that foul-mouthed body the *self-elected council*. As your correspondent truly remarks, snubbed they have been, snubbed they are, and snubbed they will continue to be, so

long as they remain the hesitating, poor, inanimate beings they have too long shown themselves. The College of Physicians are preparing another pill for them. Will they consent tamely to swallow it? If they do, they are no longer deserving of the slightest commiseration. Never shall it be said that the dubs have gained another victory. Let all those good men and true of the profession, who have as yet remained in the back-ground, rush to the portals of the National Institute as to their *alma mater*, and, forgetting minor differences, rally round that numerous, influential, and respectable body, who are now so laudably and vigorously exerting themselves to rescue their class from that inferiority of position which an interested and contemptible clique are endeavouring to stamp upon them. Suffer yourselves no longer to be crushed by those who have basely used the means with which you have provided them (by their extortionate fees) to effect your overthrow and destruction; neither forget yourselves so far as to be deluded by such absurd panaceas as the registration proposition of a would-be politico-medical conjurer. Be but firm and united, and success is certain—"Ne teutes aut perlice."—I have the honour to be, Sir, your most obedient servant,

Feb. 15. A GENERAL PRACTITIONER.

## IRISH STARVATION.

[To the Editor of the Medical Times.]

SIR,—Allow me to suggest to my medical brethren in Ireland, a plan to aid the relief of the starving poor in that unfortunate island. In perusing the newspapers daily, I read of donations and subscriptions granted by numbers of charitable persons, not only here, but also in England and other countries; few and far between are the names of medical men in such lists. Surely it cannot be that they are less charitable or sympathizing than others: by no means, for it is an established fact, that no body of men give so much of their time and trouble, nay, even risk their lives, without fee or reward; but divine law commands us "to do to others as we would wish they should do unto us." Therefore we are called on, in this awful time of pestilence and famine, to give not only our advice gratuitously, but also pecuniary assistance. To do which, let every one calling himself Doctor, devote whatever fees he pockets on Sundays to the relief of the poor in his own district, so long as Providence deems fit to afflict our unhappy country with his just wrath. By giving the above a place in your widely-circulating journal, will oblige your humble servant,  
Rosslea, Jan. 26. N. P. DEVERELL, M.D.

## THE HOUNSLOW INQUEST.

[To the Editor of the Medical Times.]

SIR,—Not only the profession, but the public, are much indebted to you for denouncing one of the most extraordinary attempts to prevent justice that ever occurred in this country, and upon which the judgment of the Court of Queen's Bench, as pronounced by Lord Denman, animadverted severely, though perhaps hardly sufficiently so, to meet the exigencies of the case. But, while thanking you for the perseverance you have displayed, it must not be forgotten that a disgraceful malignity has subjected you to pecuniary loss. I am far from wishing to measure the gratification of a vindictive animosity from the cost in character on one side, or the penalty allotted on the other; and it is in this spirit that I would propose that you be indemnified from the costs and expenses incurred in both the criminal information, and the action for libel tried last week.

This is to be done only by opening a subscription; and it is to be hoped that all who wish well to the honour and independence of the profession will contribute; and, to show that I am in earnest, the moment you announce the list open I shall send a cheque for five pounds as my humble moiety. Nor do I think the subscription would be confined



to the profession; I have no doubt the officers of the 7th Hussars, and, indeed, the army generally, would gladly avail themselves of such an opportunity of expressing their sense of the obligation they are under to you for thus eliciting not only the deliberate opinion, but the well considered and matured judgment, of the court, and its unanimous condemnation of the glaring and reprehensible partisanship of the coroner and his jury upon that memorable inquest.

With many acknowledgments for your spirited conduct, I remain, Mr. Editor, your obedient servant,  
FIAT JUSTITIA.

Finsbury-circus, Tuesday evening.

NOTE BY THE EDITOR.—We may be judges of what forms our duty, but we do not aspire, on a personal matter, to lay down what may be the duty of the profession or of the public. We will not deny that any attestation to our usefulness, still more to the unhesitating character of that usefulness, is most gratifying; but we should be sorry to admit that our sense of duty, or alacrity in its discharge, would be lessened one iota under any amount of coldness or of misappreciation—or even of discouragement. A matter of public justice should be done—if done at all—for its own sake. Thinking, therefore, that the matter suggested by our correspondent belongs to others—not to ourselves—and quite content, if deemed proper, to pay the price of any supposed advantages we have purchased for the public or the profession, we must decline to make our journal the medium of any subscription movement, and leave, on this subject, the public to its own impulses.

[To the Editor of the Medical Times]

SIR,—Having read in your valuable publication, No. 378, Dec. 26th, 1846, page 253, an article headed "Surgical Impostor," I now take an opportunity of stating the result of the trial of the chiropodist, and forward to you, for the information of my professional brethren, a particular detail of the artist's mode of operation, and the result of it in the discovery of a nursery of corns where the most eminent men in our profession appear never to have thought that they were ever grown.

Joseph Wolff, tried at the sessions for the county of Suffolk, held at Beccles, on the 4th instant, on a charge of having in the borough of Southwold, in that county, on the 1st of December last, obtained from a gentleman resident in that town the sum of £1 by false pretences, represented in the calendar of prisoners as thirty-five years of age, a labourer, of the city of Norwich, but who, by his handbills, had represented himself as Dr. J. Wolff, chiropodist, patronized by a crowned head, and every grade of nobility and gentry from the throne downwards, was acquitted by the jury, on the ground, as it would appear, of insufficient evidence, arising perhaps out of the loss of materials pretended to have been extracted as corns, and the difficulty of showing that the whole sum charged was a fraud, as what is usually called a corn had been operated upon, and the patient felt ease from it.

The theory of the chiropodist, as previously stated, is, that corns are generated in considerable numbers in, and spring from, the bone immediately under what has never before been doubted to be a corn; and in order to the extraction of which, in the cases alluded to, and at which I was present, the following was the ceremony of operation:—Seating himself with his face towards the light, and taking care to object against any person placing himself in a situation distinctly to see the whole operation, the operator threw a handkerchief over his knee, upon which the foot of the patient was laid. The visible corn was then pressed somewhat unceremoniously, to give, it is presumed, the patient a sufficient idea of the pain occasioned by such things, and the value of the service rendered by the removal of them. The chiropodist then proceeded to pare the uppermost layer of the thickened cuticle of every corn upon the same foot, using a

number of variously-shaped scalpels. He then proceeded to loosen, by means of a set of instruments like gum-lancets of different shapes, and some of them much rounded, the entire natural corns, turned them up and on one side, then cut off the more callous part of each, leaving the under layer of the cuticle, of which he contrived to form a sort of flap, which he subsequently made use of; with crooked scissors of various sizes, having clipped away all uneven surfaces from the different corns under operation, then, with suitable solemnity, the operator took from a round box a bottle of mysterious oil, somewhat resembling blood, which he represented as having the power to raise the corns. This oil was with abundant care rubbed over each toe operated upon, and into each excavation made in it, until it foamed; and at this, perhaps, critical period of the operation, the operator invariably resorted to some manoeuvre to attract the attention of any bystander, and each flap before spoken of being carefully closed over the orifice, and the oil wiped from the outer part of the toes, the chiropodist then, by means of an instrument like a large silver toothpick, with great adroitness, disengaged what he called the corns, and brought them one by one to view, exclaiming, "See de corn." The object being thus made visible, the operator taking up a pair of long, broad forceps, deeply grooved and closing with a slide, proceeded to lay hold of it; and suiting the action to the extremity of the case, he affected to exercise the utmost judgment and care in the ceremony of extraction, which having with apparent difficulty effected, the self-created corn was usually triumphantly exhibited, and its point applied to the back of the patient's hand, no doubt that its power to give pain might be felt. In conclusion, the flap before spoken of was trimmed off, and, if there was any appearance of blood, the chiropodist applied small pieces of charpie, dipped in a yellowish-brown astringent, and every toe operated upon was bound neatly up and secured with adhesive plaister.

The Wolff corns, or the spiculæ designated by Dr. J. Wolff as corns, are horny, bristly, or bony substances, which may be manufactured either of the parings of horses' hoofs, or the bones of fish; but I have great reason to believe they were manufactured from the parings of horses' hoofs. In length they are about one quarter of an inch, some jagged, some smooth, and some curved; and in size do not exceed that of a small pin. Although the artist was somewhat deficient in graphic skill, the members of our profession will have no difficulty in forming a correct opinion of his talent in practical imposition, which has been carried nearly through the length and breadth not only of our island, but into Ireland, to say nothing of the Continent. In Ireland, I have evidence of the extraction of £8 from the purse of a lady, and in my own immediate neighbourhood of £6 for twenty-five spiculæ. From London I have received various communications, and amongst them of the extraction of fifteen guineas from two gentlemen residing in that fountain-head of medical and surgical knowledge, besides similar and, indeed, greater impositions practised elsewhere. The most gratifying communication, however, has been from Cheltenham, where it appears that the impostor, for his malpractices on the feet of his patients, was sent to exercise his own feet on the treadmill.

The object, from first to last, in the proceedings against Dr. J. Wolff, has been to expose the absurdity of his theory and the extent of his trickery; and the object of addressing to you this exposition of the mystery of his operations has been to show the necessity of great caution, particularly in our profession, in certifying anything not well understood. In my own case I considered myself perfectly secure from imposition, not simply from the personal recommendation of Dr. Wolf by the gentleman whose house he had just left, but from a splendid book of certificates containing the autographs and seals of several noblemen, and printed testimonies from many

members of high eminence in our profession, on which I could not but rely, as fully justifying a recommendation of the operator to my friends, by whom they were so grossly deceived, and the deceptions upon whom well warranted, in my opinion, the proceedings which I thought proper, in justice to them, to adopt.

ROBERT WAKE, M.D., M.R.C.S.E.  
Southwold, Suffolk, Jan. 18.

## ON THE USE AND ABUSE OF HOSPITALS.

[To the Editor of the Medical Times.]

SIR,—At the present time when many of the London hospitals are circulating their begging advertisements, and collecting large sums from a liberal public, surely it is a very proper and fitting opportunity to direct attention and inquiry as to the due appropriation of the vast amounts contributed for these avowed charitable institutions, and whether there are not too many instances of the mal-appropriation, misuse, and I may say abuse, of that good and benefit which the donors and supporters consider to have promoted. I am prepared, however, to show that their humane intentions are constantly, and most wantonly, diverted from their proper course, and rather made a vehicle for private interests, than for the relief of truly deserving objects. As it is the received opinion that the poor and needy only have a claim upon such institutions, is it not, I would ask, a misuse and abuse of their funds, to allow the admission (except under very peculiar circumstances) of any persons possessing ample means from their own resources to procure medical advice and assistance elsewhere? It is a matter, however of daily notoriety, that persons are received as patients at the hospitals whose dress, appearance, and station in life would never warrant or justify such an application; and it is to the surprise of many that the medical officers silently permit these encroachments. In the course of my attendance at the hospitals (now some years) I have too long witnessed, and expressed my indignation, that this practice should be tolerated, and, in numerous cases which have come under my notice, have taken some pains to investigate the circumstances of such applicants, and very generally found that they were as well able to procure private medical attendance, as to exhibit themselves at all times with the ornaments and frippery of fashion. Others, influenced by still more sordid motives, under the veil of charity, make it rather a matter of economy, as, by a trivial subscription to an hospital, they claim the privilege of sending at need any of their (often numerous) establishments for medical advice and medicines, gratis, throughout the year. On the other hand, cases are constantly occurring where poor miserable and really proper objects present themselves for relief, who are abruptly rejected, and dismissed as only fit for the tender mercies of a union workhouse—the reason assigned being, that although labouring under disease, often of a very frightful form, they are not such subjects as are suited for the instruction of pupils, or, in other words, they are not cases in which some professional carver can display his much-loved manipulations before a theatre full of gaping and admiring young students. In conclusion, therefore, I trust that you will consider what I have represented as highly deserving public notice and censure, and that you will lend your powerful aid in decrying an abuse which calls so loudly for correction.

I have the honour to be, Sir,

Your obedient humble servant,

Feb. 15.

Αλφθγς.

## ADDRESS OF THE NATIONAL INSTITUTE.

To the General Practitioners of Medicine, Surgery, and Midwifery.

GENTLEMEN,—In the expectation that an inquiry into the state of the laws affecting the medical profession in this country will very speedily engage the attention of the Legislature, the Council of the National Institute of General Practi-



tioners in Medicine, Surgery, and Midwifery, have presented a memorial to the Right Honourable the Secretary of State for the Home Department, describing the anomalous position of the very important section of the profession which they represent, and calling the attention of the Government of this country to some of the great and acknowledged evils and disadvantages that press peculiarly upon that section as a class. The memorial also prayed for the assistance of the Government—on public as well as on professional considerations—to obtain the amelioration of those evils and disadvantages with as little delay as possible.

To the document in question, the Council of the National Institute invite the earnest attention and serious consideration of all classes of medical practitioners. The medical profession in England is at this moment surrounded by the greatest difficulties, from inadequate laws and ill-adapted institutions; whilst many causes have combined for a long series of years to arrest and to render abortive every attempt to amend and reconstruct them. This is surely a matter of sufficiently serious importance to deserve a small share of time and attention from each of its members; and, were a body of intelligent and honourable-minded men to enter upon the consideration of the subject in a liberal and patriotic spirit, they would find little difficulty in agreeing upon such a general measure of reform as would be acceptable to a large majority of the profession.

In the absence, however, of such general accordance, and with a view of clearing away some of the difficulties in the way of a satisfactory solution of this complicated question, the Council of the National Institute beg to recall the attention of the general practitioners in particular, to the circumstances which immediately followed Sir James Graham's first attempt at medical legislation. When the details of the proposed bill were carefully examined, the general practitioners were for the first time made sensible of their own extraordinary position; that, although they numbered nine-tenths of the entire profession, they were unknown as a collective body; they had no corporate rights—no council nor executive to express their wishes or opinions—nor had they any common hall wherein they could assemble for the purpose of consultation.

The disabilities above referred to were so manifestly injurious to them that at the first public meeting, held at the Hanover-square Rooms on the 7th of December, 1844, at which nearly one thousand general practitioners were present, the following resolution was the first proposed, and unanimously adopted:—

"That this meeting is decidedly of opinion, that prior to the passing of any bill for the regulation of the practice of medicine and surgery, it is of the utmost importance to the interests of the public that the general practitioners of medicine, surgery, and midwifery should be legally recognised and placed in an independent position; and that the Executive Government be respectfully and earnestly requested to suspend the further consideration of the bill laid before Parliament at the close of the last session, until this object has been attained."

The Council refer with confidence to the events of the last two years, for a full verification of the principle contained in the foregoing resolution. By neglecting to perform, in the first instance, an act of common justice to the great bulk of the profession, a powerful Minister, with all the Government support at hand, after introducing four successive bills before Parliament, was compelled reluctantly to withdraw the whole of his contemplated measures—thereby acknowledging his inability to complete what he believed to be a most important and necessary measure of legislation.

That such will be the fate of every attempt at medical legislation,—whether it be a simple matter of registration or a measure embracing the whole question,—is the opinion of the Council of the National Institute, unless an ostensibly

recognised head and home, be found for the general practitioners—as an indispensable and necessary preliminary to any more extensive or comprehensive measure of Medical Reform. The Council consider it of the utmost importance that the class of practitioners to which they themselves belong should, without a moment's unnecessary delay, meet, and strenuously support the Council in the prosecution of their just claims to a legal recognition; and they have every confidence that their professional brethren will see the necessity that exists for immediate action, before the attention of the Government, the Legislature, or the profession is preoccupied by the consideration of the claims made by the medical corporations, or of the proposed Medical Registration Bill. The latter proceeding is most unquestionably ill-timed, whatever may be its intrinsic merits; for, until the general practitioners are duly recognised as a collective body, with what security can they consent to a legal registration, that may place them irretrievably in an inferior and subordinate rank? With these observations the Council conclude by again directing attention to the memorial presented to the Government; and they call upon their professional brethren, in the true spirit of patriotism, to merge all minor differences of opinion on this important subject, and, with the calmness and deliberation befitting a body of scientific and intelligent men, to unite and determine upon some uniform plan of co-operation that may secure an early and satisfactory settlement of the affairs of the Medical Profession.

Signed, on behalf of the Council,  
ROBERT RAINY PENNINGTON, President.  
Offices, *pro tem.*, 4, Hanover-square Rooms,  
4, Hanover square, Jan. 26th.

#### WAKLEY V. THE MEDICAL TIMES.

The Attorney-General and Mr. Bramwell conducted the case for the plaintiff; and Mr. Cockburn and Mr. Lush appeared for the defendants.

This was an action to recover compensation in damages for the publication of an alleged libel upon the plaintiff, the member for Finsbury, and one of the coroners for the county of Middlesex, by the defendants, as the proprietor and publisher of the *Medical Times*.

It will be recollected that in June, 1845, a similar action took place, and that the jury found a verdict for the hon. member for £150. In the number of the *Medical Times* which next succeeded the trial, a report of the proceedings was given, accompanied with an editorial article. It was for that report and the leading article, in conjunction with a further allusion to plaintiff's worth, in the *Medical Times* of Sept. 27, 1845, that the present action was brought.

The Attorney-General, in an address unusually vindictive and personal, brought the matter under the consideration of the jury, and pointed out the difficulty a plaintiff laboured under in all cases of libel, in consequence of the state of the law upon the subject. In the present instance the nature of the libel was such as not to demand any warmth of remark at his hands with a view to inflame the minds of the gentlemen whom he had the honour to address. In 1845 the hon. member had found it to be necessary to commence an action, which resulted in his recovering damages to the amount of £150; and it was for what had followed in two subsequent publications that the plaintiff now sought for a reparation. The learned counsel then read the libels. They appeared in the *Medical Times* of the 28th of June and the 27th of September in the same year. The first was a letter signed "Vindicator," written by Mr. Healey. The following are extracts:—

"Sir,—Should I ever seem unnecessarily to obtrude on public attention a name which professional delicacy, or your own editorial tact, would veil in silence, I will yet appeal to your sense of right—even to an enemy—to favour me with the full insertion of my proposal. It aims, Sir, to free a worthy man from hideous accusations, or

sever from a high minded profession a gangrenous member, perilous to its safety. The moral dandy, fastidious enough to veto to my just charity her only means of discharging her duty, will show a very miserable estimate of the worth of character. In the hospital of diseased reputations, there is such a thing as mistaken diagnosis; and that surgery, as Wakley will admit, is the truest cruelty which, to a man in his position, would deny, through an unmeaning delicacy, the most probing examination.

"The London College of Medicine was, in its origin, a glorious affair. It had every thing in its favour but one—the hostility of Wakley. He unfortunately gave it his support—and it perished! He lost his battle; his companions their honour.

"The British Medical Association followed. The same history, the same end! If Wakley could not raise it, he generously lent it, when raised—his name. It glistened under the light of his countenance with a sickly radiance, thawing off like snow under a tropical sun!

"Last came the Medical Protection Association. I saw with wonderment how suddenly, in power and wealth, and wisdom, this young society, obeying your call, sprung to being. It was born a man; it sprung, as from the brain of Jove, another Minerva, instinct with might and beauty. A multitudinous meeting, at three days' call, startled British Medicine from her scat, and the world asked what shall it be—this new-born giant? Surgeons and physicians—the proudest—bent their steps towards the threshold; the new popular shrine offered more promise than the old corporate idols; funds flowed in; prosperity, for once, in medical agitation, seemed our captive; but Wakley crept into the paradise, and

"at the ear of Eve, familiar toad,  
Half froth, half venom, spit himself abroad."

"Surely the name of infamy is as a greedy Mælistrom, insatiate, bottomless!

"Three National Associations sunk helpless under his aid! Three hostile colleges flourishing by his opposition! Himself contemned here, spurned there, suspected everywhere! Such is the terrible result of a whole life's ceaseless action.

"I know, Sir, your deplorably adverse opinions on Mr. Wakley's past utility. You have always described him as a medical nuisance, more mischievous to the well-being of the profession than any of the grievances he has at times declaimed against; and have added your opinion, that among the public men of our time, infamy would be homeless if there had been no Wakley. But, Sir, have you made full allowance, in judging his singular career, for the very singular circumstances under which he was placed? With such a drawback as his character on every effort, how could he have been honest, or honourable, or independent? He was to live on a public that despised or abhorred him; their contemned inferior in moral standing, how could he advise, or guide, or lead? His rôle was to please, not to improve; to pander, not to teach; to follow, not to lead; to halloo others' opinion, not give his own."

#### Editorial Article on the Trial.

"Mr. Wakley's unfortunate character has been again placed under the care of the law. The hundred and one times that the sickly, debilitated thing has had the benefit of legal attendance and advice appear to have proved inefficacious. The malady is as threatening as ever, the patient as weakly. The character, therefore, has been again compelled to consult the legal doctors, and comes away in worse plight than ever. The fate of the poor thing seems hopeless. A remedy is of the first necessity, yet the constitution's weakness makes that remedy of the highest danger. It is every whit as ill off now as in 1845, under the scientific attendance of Mr. Jervis, against an attack of that appalling malady, the *Medical Times*,



as when, twenty years since, under the skilful treatment of Mr. Denman, it had to struggle against the dire visitation of the Hope Assurance Company. Action follows action, and the work is only to be begun again. Even the House of Commons ceases to be a secure asylum. It contains its Wodehouses. The very stones cry out against that most fated of public things—the character of Mr. Wakley. \* \* \* The libel was certainly not a mealy-mouthed production. It spoke of Mr. Wakley as never letter spoke of any other public man. Without condescending to enter on any nice ‘minutiæ,’ it stated broadly circumstances and inferences which by comparison proved Wilkes to be voracious and Chartres a man of probity. The fact of its being legally a libel was not disputed. To prove the charges spoken of as prevailing was not attempted. It was legally impracticable. As the Lord Chief Baron remarked, too, ‘no apology was made, no excuse offered; the *Medical Times* appeared in the court letter in hand, yielding nothing, denying nothing, flinching in nought. In so many words, it said, ‘We stand upon the letter.’ Judge between it and Mr. Wakley’s character. Damages you must give; how much, we trust with secure confidence to your estimate of the character.’ Well; a jury of gentlemen—to whom £100 is much the same thing as as many shillings to the ordinary components of a common jury, and therefore chosen by the plaintiff—appraise the worth of the character so grievously aspersed. The plaintiff says his injury is £2,000. The Judge says that, being admitted to be a libel, handsome damages should be given to suit the high position of the plaintiff, as a coroner and member of Parliament; the plaintiff’s counsel says, the aspersions will last for ever unless very high damages are given; the jury—the ‘special jury’—retire, and, after three hours, appraise the character at £150—one alone preventing its being £100! And this is called clearing character! Why, the six daily (not to speak of weekly and provincial) papers that republished the libel, would have charged more money for inserting it as an advertisement!”

On the 27th of September, in an article entitled, “To the now United Body of English, Irish, and Scotch General Practitioners,” was this paragraph:—

“Scrutinize, we entreat you, the motives and characters of the men who, at this critical juncture, would replunge you into your old feebleness and disunion. Who are they? What is their character for honesty, pure-mindedness, or love of you? Are they not headed by the notorious Wakley, to whom every interest you have is a mere matter of personal profit or loss,—the breath of whose ill repute has blighted all that it has touched, save his own income,—a low man, who, connected with a peaceful and learned profession, has lived in a self-engendered atmosphere of vituperation, calumnies, brawls, and fights! Rejected with contumely from the Committee’s society, his whole code of policy and morality now centres in the wish for vengeance. Who are his few followers? Who are the Falstaffian troop of his supporters, on whose desperate activity he counts for his nefarious success?”

The learned counsel, in conclusion, demanded whether such a repetition of calumnious attack did not call for large damages, notwithstanding that the plaintiff had, on a previous occasion, received a compensation at the hands of a jury for the first of these libels, of which he had been compelled to complain?

The proprietorship and publication of the paper having been admitted,

Mr. Cockburn proceeded to address the jury, in a very vigorous speech, on behalf of the defendant. He indignantly denounced the course that had been pursued in this matter, and the comments which his learned friend had so freely passed upon the defendants. The assumed feeling of his learned friend had been one of the best pieces of forensic acting he had witnessed in a court of justice. He could not but characterize

the whole affair, on behalf of the plaintiff, as one of the most contemptible and malignant proceedings that had ever been heard of. He condemned the cowardice of going to the shop of the paper, and there, in the absence of the publisher, persuading a lad to hunt in the back rows of the shelves for the back numbers of this publication, designating it the artful dodge, and then that his learned friend should come forth and denounce that as a republication of the original libel. The second publication of the letter of “Vindicator” was merely a report of the trial, and was part of a fair report, containing the speech of Mr. Wakley’s counsel, the summing up, and verdict of the jury. And then the plaintiff came and demanded reparation. He fancied he could see through the matter. Mr. Healey and Mr. Wakley were rival proprietors, respectively, of a medical work. Was there not, then, something more than a mere wish to set his character right, by which the movements of the plaintiff had been guided? It was not the simple vindication of that character that the plaintiff wanted. The delay in bringing the action so long, showed the nature of the proceeding. The learned counsel, in reference to the libels, contended that they were justified from the fact of the plaintiff being a public character in almost every relation of life. A latitude and a freedom, too, were necessary to the press, with a view to the general good; without that, society would be nought. Thus, in the present instance, some additional latitude should be allowed in consideration of the fact that these were only the remarks of a man who had been obliged to pay the plaintiff £150. He thought the whole proceedings of the plaintiff were marked by malignity and cowardice.

The Lord Chief Baron, in leaving the case to the jury, said it was impossible, after having heard these articles read, not to pronounce them to be libels; and, therefore, the plaintiff was, without doubt, entitled to a verdict. The only question, therefore, was, as to what damages the plaintiff was entitled to. If the defendants thought that, by having paid a penalty of £150 for having published a libellous article, they were thereby warranted in publishing that libel in a report, they were very much mistaken. The learned Baron having carefully noted in succession every point likely to tell against the defendants, left it to the jury to say what amount of damages the plaintiff was entitled to.

The jury retired, and, after an absence of nearly an hour, returned with a verdict for the plaintiff—damages, £175. The damages were laid at £2,000.

#### GOSSIP OF THE WEEK.

**APOTHECARIES’ HALL.**—Gentlemen admitted members on Thursday, Feb. 11:—William Cadge, Richard Charles Shettle, John William Abell, Henry Ashton, W. Weston, and Samuel Lawrence Gill.

**OBITUARY.**—On the 2nd inst., at his residence, Bristol, Gawen Ball, M.D., a respected member of the Society of Friends, in the eighty-first year of his age.—On the 17th ult., aged sixty-nine, William Thornton, Esq., late surgeon of the 99th Regiment of Foot, and also of the Royal West Middlesex Militia.—On the 23rd ult., at Dungeness, of fever caught in the discharge of his duties as medical officer of the workhouse there, William Dawson, Esq., M.D., aged fifty-three years.—On Sunday morning, the 31st ult., William Fortescue, Esq., surgeon, 9, Smithfield-bars, aged sixty-eight, deeply regretted by his family and friends.—On the 29th ult., at 2, Gray’s-inn-square, Walter Parsons, Esq., assistant-surgeon, R.N., in the thirtieth year of his age.—On Saturday, the 30th ult., at Ryde, A. T. S. Dodd, Esq., aged forty-four, late of Chichester, surgeon.

**WAR-OFFICE,** Feb. 12.—6th Dragoons—Surgeon James Sidey, M.D., from the 75th Foot, to be Surgeon, vice William Milligan, M.D., who retires upon half-pay.

**SOCIETY FOR RELIEF OF WIDOWS AND**

**ORPHANS OF MEDICAL MEN IN LONDON AND ITS VICINITY.**—The annual dinner of this Society is appointed to take place on Saturday, the 24th of April.

**NAVAL MEDICAL PROMOTIONS AND APPOINTMENTS.**—Assistant-Surgeons, Dr. Thos. Stratton (1887) and Francis B. Pritchard (1839), to the rank of Surgeon.—Surgeon Henry J. Donville, to the Mariner.—Assistant-Surgeons, William Thompson Kay, to the Royal Naval Hospital, Stonehouse; John G. G. Ballantine, to the Express.

**THE PHARMACEUTICAL TIMES.** London: 49 Essex-street, Strand.—This paper is devoted to the extension of Pharmacy and Chemistry in England, and is conducted with great industry and ability, and is worthy of the most extensive circulation.—*West of England Conservative.*

**THE MEDICAL TIMES.** London: 49, Essex-street, Strand.—The January part of this excellent professional paper contains an immense mass of matter of high interest to all medical men.—*Ibid.*

**APPEAL TO BRITISH FREEMASONS.**—Dr. Lane, the barrister, of the Inner Temple, has addressed to his brother masons, among whom he stands deservedly high, a powerful appeal to their assistance, as masons, of the Irish in their present destitution. We can bear testimony to the elegance and good taste that characterize this elegant brochure.

Dr. Smith has resigned his appointment of Physician to the Cheltenham Hospital in consequence of a dispute arising between himself and the Hospital Board. This dispute appears to have arisen from a case of removal of the breast of a woman while under the influence of ether. The Board have transmitted a bill of 2s. 7½d. to the doctor, with a request that he would discharge it!!!

**WHITEHALL,** Feb. 3.—The Queen has been pleased to appoint Dr. William Pulteney Alison to be First Physician to her Majesty in Scotland, in the room of Dr. J. H. Davidson, deceased.—The Queen has also been pleased to appoint Dr. Robert Christison to be one of her Majesty’s Physicians in Ordinary in Scotland.—The Queen has also been pleased to appoint Dr. James Young Simpson to be Physician Accoucheur to her Majesty in Scotland.

#### MORTALITY TABLE.

For the Week ending Saturday, Feb. 13, 1847.

Causes of Death.	Total.	Average of 5 Winters.
ALL CAUSES.....	1146	1068
SPECIFIED CAUSES...	1144	1061
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	134	183
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	94	112
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	171	170
Diseases of the Lungs, and of the other Organs of Respiration.....	463	354
Diseases of the Heart and Blood-vessels.....	65	32
Diseases of the Stomach, Liver, and other organs of Digestion.....	71	70
Diseases of the Kidneys, &c.	11	8
Childbirth, Diseases of the Uterus, &c.	22	12
Rheumatism, Diseases of the Bones, Joints, &c. ...	8	7
Diseases of the Skin, Cellular Tissue, &c. ....	3	2
Old Age.....	75	81
Violence, Privation, Cold, and Intemperance.....	22	30



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